

*Carnegie Corporation  
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*Annual Report 1988*



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## *Annual Report 1988*

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# *Report of the President*





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# *A Historic Opportunity to Reduce the Nuclear Danger*

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The central fact of the nuclear era is the unprecedented destructive power of the weaponry. One bomb can take a city, one submarine a country. Never before in the long history of the human species has anything like this capability existed. In the past, no matter how ferocious the war waged, we could not destroy humanity and its civilizations if we wanted to. Now we can.

History contains countless examples of destruction wrought by human error; in recent centuries the interplay of human error with machine error has heightened the risks — and the consequences. The most vivid cases in the past decade have fortunately not occurred with nuclear weapons but with nuclear energy, namely the Chernobyl and Three Mile Island accidents. Frightening as these episodes were, they were mild compared to the explosion of nuclear weapons.

The beginning of wisdom in the nuclear era, then, is to grasp the enormous, unprecedented, profound, and pervasive consequences of nuclear warfare. This fact, together with the likelihood that sooner or later human error — a misjudgment or miscalculation brought about by the interplay of personal and mechanical foibles — will eventually occur in the arena of nuclear weapons goes a long way toward explaining the deep unease felt in the world about the adequacy of a nuclear arms race to keep the peace for the long term.

In this deadly context, the leaders of the superpowers are at once the most powerful leaders in history and, inherently, the most dangerous, pulling all of humanity into the same predicament. Can they cope with the nuclear danger? What can the rest of us do to help them?

In the past few years, the leaders have taken a great step forward by making explicit the fundamental concept that nuclear war can never be won and must never be fought. The nature and scope of military strength appropriate in the new circumstances is now undergoing reassessment. Measures are in the offing to reduce the number of weapons greatly and especially to limit their capacity for a first strike. There is greater awareness that ways must be found to decrease the chances of accidental or inadvertent nuclear war and to apply additional safeguards against unauthorized launch and serious miscalculation. Steps are being taken to

*Note: the president's annual essay is a personal statement representing his own views. It does not necessarily reflect the foundation's policies.*

improve basic relations between the superpowers. In the future, cooperation may even be possible in crucial matters bearing on the health and safety of humanity.

## The nuclear predicament

But how could we have plunged ourselves into a predicament in which the existence of all humanity is totally dependent on the leadership and the computers of two great powers? What sources of distrust, even hatred, between the United States and the Soviet Union could possibly have engendered such a precarious and menacing situation?

Without being a Pollyanna about American life, I believe it is reasonable to say that the United States is not an obvious candidate for such a hostile circumstance. The nation has been blessed through most of its history with democratic traditions, extraordinary freedom and opportunity, an abundance of natural resources, and a relative paucity of serious threats to its well-being. With occasional exceptions, the prevailing national attitude from the beginning of the republic has been to steer clear of foreign entanglements and, above all, of serious international conflict. The promise of American life has been so great, and the external threats so modest, that we could afford to welcome strangers and to thrive as a nation of immigrants. With great reluctance and ambivalence, we were drawn into both World Wars. Unwisely, after World War I, we pulled back and tried to minimize our involvement in the troubles of others. By the time World War II ended, we had to face the fact that we could not withdraw to the same extent again. Yet we were hopeful that the lessons learned from the wars would make possible an unprecedented degree of international cooperation, including U.S.-Soviet cooperation.

That the Soviet Union was our ally in the last war went a long way toward muting our earlier suspicions of that nation. So it was with surprise and disillusionment that we watched Stalin's behavior in the postwar years, especially in eastern Europe. Whatever criticisms one may have of American policy in that era, just imagine for a moment what would have happened if the situation had been reversed—if Stalin had had a monopoly on the atomic bomb and we were defenseless against it.

To understand these developments requires deep knowledge of the tortured history of the Russian people — a history full of invasions and desperate wars, repressive authority, prejudice and ethnocentrism, and terrible suffering. Not least in this catalog of horrors were the deaths in World War II of 20 million Soviet people.

The Soviet regime was superimposed on many centuries of repressive authority, but it took on a very special character, indeed a lethal exacerbation, under Stalin. Stalin's atrocities were primarily directed at his own people, including much of the leadership with which he evidently had a pathologically competitive relationship, but his depredations were also directed outward. Together, his dictatorial rule, the reign of terror he inspired, and his deceitful international behavior contributed mightily to the onset of the cold war in the late forties and early fifties. Since then, starting with Khrushchev's efforts to expose some of the horrors of the Stalin period, the Soviets have tried to escape the enormous weight of Stalin's legacy —



in politics and economics and in daily life — but it has been a slow and tortuous process and is a long way from over.

Despite the bitter disappointments of the postwar years and the travails of the cold-war decades, the American people have generally been inclined to find ways to diminish the conflict and minimize the danger. Survey research indicates that, despite a high level of distaste and suspicion where the Soviet government is concerned, most people have been interested, to some degree, in negotiated settlements, in greater understanding, in finding decent ways out of the nuclear dilemma. Yet these ways have proved elusive. Periods of promise or even tangible improvement have been followed by renewed threats and deep hostilities.

As one decade followed another, there arose in each superpower an establishment that made a virtue of necessity and that in some ways seemed to thrive on the cold war. A substantial minority in each country derived economic benefits from the military, industrial, and governmental aspects of the cold war. Some in leadership positions based their self-esteem to a considerable extent on it, and a small but non-trivial number of people used hatred as an organizing principle for their lives. As a result, a sizable fraction in each society has acquired a stake in continuing the cold war at a high level of intensity. This complicates the task of farsighted leaders with humane impulses.

## **Then and now: Changes since World War II**

Developments of the past few years make it possible for us to recognize how different the world is from what it was at the end of World War II. War-ravaged Europe and Japan — and the United States — not only feared the powerful Soviet military, but Soviet efforts to utilize poverty, war damage, and human suffering to subvert and gain control of governments.

Today the world is fundamentally different. Europe and Japan are dynamic and prosperous. A surge of democratic movements is evident in many countries, albeit fragile in places where there has been little experience of it. The earlier Soviet military threats and commitments to “wars of national liberation” are fading rapidly. The nations of the developing world have emerged from the era of decolonization without becoming deeply attached to the Soviet Union. The ideology of communism, in fact, has lost much of its appeal everywhere, even to some extent within the Soviet Union.

To the extent that the Soviet Union at the end of World War II looked to strong military forces and buffer zones to protect it against future invasions, any reasonable Soviet leader should recognize that this has been achieved. But the economic, political, and military costs have been very high, for the Soviet Union as well as for its rivals. And what has been gained in fundamental security? With all the vast expenditures and risks, is the Soviet Union actually more secure than it was in 1945? Probably not.

By and large, the goals set out by American foreign policy in the postwar period have been achieved. Europe and Japan have been rebuilt, enemies have been turned into friends, democracy has flourished, colonies in the developing world have been replaced by free nations, a worldwide economic system has emerged,

the Soviet Union is now seeking better relations with its adversaries. Not a perfect world by any means, but much better than it was then, and far better than it might have been.

Yet it is still a very dangerous world. In the years since World War II, there have been more than 100 wars between parties other than the United States and the Soviet Union. In any given year in the 1980s, 20 or more nations have been engaged in active military conflict. While the dramatic postwar gains in science and technology are clearly beneficial in many spheres of life such as health and agriculture, they concomitantly provide the capacity for immense increase in destructive power around the world. A multicentric world is rapidly evolving in which the ancient human proclivities toward hatred and violence can erupt into mass slaughter at any time. Some of these virulent, "high-tech" conflicts have the potential for triggering nuclear crises.

If nations feel competitive for whatever reasons, what is the reasonable way to compete under contemporary circumstances? Military strength is surely still important in a world so full of hostility — reaching far beyond the U.S.-Soviet relationship. Yet, the fundamental transformation of the world during the 20th century must be recognized. Deeply ingrained habits, familiar and largely congenial stereotypes, and deep-seated fears must be overcome.

In terms of U.S.-Soviet relations, we need the vision and courage to imagine a new and better basis for conducting our affairs. Perhaps there are ways to build institutionalized control mechanisms that would greatly reduce the risks — and above all the nuclear danger — in U.S.-Soviet relations over an extended time and across different administrations. Perhaps there are more constructive formulations of mutual security adapted to current conditions. Perhaps there are accommodative policies that would be of mutual benefit and structures to ensure that these policies are actually carried out.

### **Is there an authentic opportunity?**

Gorbachev appears to differ considerably from previous Soviet leaders in his willingness to face serious domestic problems. No longer do we hear the ritual incantation of the perfection of the Soviet society and the emergence of a new Soviet man. While he retains pride in his country and some aspects of its social system, he is an extraordinarily penetrating and pervasive critic of its shortcomings. Over and over again, he calls attention to the stark reality of an unproductive economy. He is keenly aware of the contrasts of his country with those more technically advanced and with the middle-tier developing countries as well. He seems offended by the evidence around him of rigidity in thinking, deceitful practices, widespread corruption, including in the Communist Party itself, and repression.

To an unprecedented extent, he has turned to the scientific and scholarly communities to help himself understand the difficulties and to seek ways of modernizing the Soviet economy and society. Several insights have become recurrent themes in his speaking and writing: 1) The world is rapidly being transformed by advances in science and technology. 2) The consequences of nuclear war in the Soviet Union would go far beyond the great damage of World War II. 3) There is a



continuing danger of inadvertent war based on human and/or mechanical error, and the effects would be exceedingly devastating even if the war were limited to conventional forces, which is very doubtful. 4) Soviet foreign policies since the war have been unwise and in some ways counterproductive — as in the invasion of Afghanistan. 5) Decades of Soviet military buildup have imposed a serious drain of money and talent from the civilian economy.

For these and other reasons, he is inclined toward an accommodative external policy. He is apparently seeking to diminish not only the economic costs but also the political and psychological costs of continuing on the path of his predecessors. He seems keen on earning Western respect and obtaining Western expertise. He would like to gain intellectual, technical, and economic resources to modernize the Soviet Union.

To pursue an accommodative policy he must take into account certain constraints — the need to protect his core national interests and to cope with domestic politics, including the resistance of those who accuse him of giving away too much or of abandoning basic principles. The risks for him are very great, but he seems willing to take them in order to achieve major reforms in his country. Because his motivation is so strong, and the challenge so immense, there may be a historic opportunity over the next five to ten years to change Soviet-American relations in ways that could make the world a much safer place.

It is clear that Gorbachev faces formidable internal obstacles and may use up his political capital before he can make deep changes. With staying power, he will serve out a ten-year term. On the American side, it is plausible to think that the new administration will have two terms. A time span of eight years may well be enough to make substantial improvements in Soviet-American relations. It will not be easy in view of the cold-war history and the inherent complexity of the issues, but the policies of the Reagan administration in the last few years, and the relationship that developed between Reagan and Gorbachev, could nonetheless provide a bipartisan basis for exploring constructive opportunities. Leaders of other democracies, notably Margaret Thatcher, are emphasizing such opportunities.

In light of disappointments with the Soviet regime before and after the onset of the cold war, there is understandable caution in the West about how to proceed. Although there is growing and widespread consensus that an exceptional opportunity is emerging, there is less agreement on the nature of the opportunity and how we might reasonably pursue it. What do we want? Must there be certain fundamental changes in Soviet policy and practice to satisfy us? Do we want revenge? Or do we want substantially less dangerous behavior and more decent human relations?

In a very concise way, here is a first approximation of what changes in Soviet behavior we might want:

- 1) Accommodative external relations. This has several components: a) no military adventures; b) no ideological promotion of hatred; c) respect the security needs of other countries; d) wind down military and repressive control of the Soviet empire, especially in eastern Europe where the cold war began.
- 2) A decent level of human rights for Soviet citizens. This means meeting a basic

world standard for human rights and a continuation of the present trend toward increasing political, economic, and social freedom.

3) Increased openness, extending the current trend toward transparency if the Soviet Union is to become a reliable partner in international affairs.

In general terms, what can we do to facilitate such major changes in Soviet behavior? We can:

1) Adopt a constructive rather than a hateful attitude, treating the Soviets with respect where respect is earned and undertaking a problem-solving orientation toward the issues that divide us.

2) Take genuine Soviet security needs into account in negotiating agreements on arms control and crisis prevention, meeting them somewhere between their ideal wishes and ours.

3) Carefully broaden contact with the U.S.S.R., undertaking collaborative ventures where mutual benefit can be attained, seeking ways to improve basic relations.

4) Become exemplars of respectful, problem-solving behavior and expect their leaders to exemplify similar constructive orientations.

Gorbachev has earned considerable respect from American leaders, most dramatically from President Reagan, and from the American people for some of the changes he has already made. His mode of dealing with the United States and other adversarial countries is a distinct improvement on his predecessors'. He tends to be direct and civil and seeks to understand other nations; he functions mainly in a problem-solving rather than a polemical mode. (This applies both to internal problems and external relations.) He appears increasingly to recognize how very much conditions have changed over the 70-year history of the Soviet Union. He has moved towards greater openness in policy and practice.

Gorbachev's years in power have been characterized by a good deal of "new thinking." What are the concepts he is introducing? We can briefly state key ideas that show how he has moved beyond the vision of previous Soviet leaders:

1) He supports the concept of *mutual* security;

2) accepts the idea of reasonable sufficiency of military forces rather than military superiority;

3) supports scaling down to equality in military forces, asymmetrically if necessary — including accepting the appropriateness of greater Soviet than American reductions in important kinds of nuclear and conventional forces;

4) recognizes the reality of nuclear weapons and their practical unsuitability for military purposes;

5) recognizes the world's growing interdependence, militarily, economically, and environmentally;

6) recognizes the persistent risk of accidental or inadvertent war

- 7) recognizes the importance of modern science and technology for a flourishing economy and society;
- 8) recognizes the growing importance of political and economic freedom for effective modern societies;
- 9) supports fostering widespread innovation and creativity for the purpose of economic, political, and social reform — *perestroika* (restructuring) and *glasnost* (openness) as well as some degree of democratization; is facing problems and seeking options;
- 10) supports seeking ways to foster national reconciliation within Third World countries experiencing conflict.

In what spheres have tangible actions been taken that are consistent with such concepts? There is some discernible movement in most of these spheres. A few examples can briefly be given here:

- 1) Considerable increase in emigration; dramatic increase of expression in the press and the arts; proportionality of response in punitive measures; movement toward reform of the legal system; the first contested elections since 1917; wider scope for nationalities within the Soviet Union; some economic decentralization;
- 2) a drawing back from some Third World regions, most notably Afghanistan, and a tendency to facilitate regional solutions elsewhere, as in southern Africa and in Cambodia;
- 3) a modest loosening of the reins in eastern Europe and encouragement of reforms there;
- 4) arms control concessions that indicate new flexibility and even creativity in Soviet behavior: witness the Intermediate Nuclear Force (INF) agreements with their intrusive verification measures and asymmetrical reductions; the agreement to create a new and promising institution based on American ideas, the Nuclear Risk Reduction Centers in Washington and Moscow; and the commitment to significant unilateral cuts in conventional forces in Europe announced in his December 1988 speech at the United Nations;
- 5) the promotion of previously forbidden military-to-military contacts, including extensive exchange visits at the highest levels;
- 6) increase in the quality and quantity of U.S.-Soviet contacts—scientific, scholarly, economic, cultural, and political.

The United States and other democracies have tried to encourage these tendencies, both in thinking and in practice. It is reasonable to expect that serious and sustained attention will be given to additional ways in which the strong democracies can facilitate such encouraging developments. The great challenge for the years ahead will be to formulate well-founded policies and practices that could in fact strengthen and accelerate the constructive changes in Soviet behavior that Gorbachev has initiated.



## Guidance from Past U.S.-Soviet Experience

What can we learn about such policies from the difficult experiences of U.S.-Soviet competition and cooperation over the cold-war decades? An important book appearing in 1988 pulled together for in-depth scrutiny the entire record of U.S.-Soviet efforts at cooperation throughout the nuclear era. Entitled *U.S.-Soviet Security Cooperation: Achievements, Failures, and Lessons*, it analyzes nearly half a century's tense experience. Certain recurrent themes and major findings emerge. The book points out that much learning and adaptation has taken place in both nations in order to keep the peace, despite deep hostility and profound strains. Some useful cooperative agreements have been reached, even in the worst of times. Although they fall far short of a comprehensive U.S.-Soviet security regime, they include a variety of norms, agreed-upon rules, evolving patterns of behavior, shared procedures, and even some specially created institutions to keep the peace and, in particular, to prevent nuclear confrontations. Through the decades of the cold war, each nation came reluctantly to recognize that the other had a sphere of dominant interests in which it could not be pushed very hard without producing great danger. Above all, direct clash of military forces was avoided as an implicit rule of prudence. In 1986 a promising step was taken with the establishment of frequent bilateral discussions of regional problems that are potential flash points. Both sides are learning how to conduct these talks in ways that are meaningful and of practical value, going beyond mutual exhortations and ritualistic assertions of grandiose national interests.

The most significant development has probably been the working out of a practical security regime for Europe. Since that is where the cold war began, and the stakes are so high there, this arrangement has surely been useful. It has been a complex, multilateral effort covering military, political, and economic aspects of relations between western and eastern Europe. Reluctantly and ambivalently, the two superpowers have come to recognize each other's security interests in Europe. This view includes an explicit recognition of the role of the United States and the Soviet Union in European security, the functional division of Europe, the division of Germany, the independence and neutrality of Austria, the independence and neutrality of Finland, the independence and neutrality of Yugoslavia, and the special status of West Berlin. Taken together, this is a considerable achievement.

More recently, there have been surprising developments in arms control, both structural (the level of forces) and functional (the way the forces are utilized). The INF treaty is the principal manifestation in the structural field. The Stockholm agreement on confidence-building measures in Europe is the principal achievement in the functional field, although the Nuclear Risk Reduction Centers should be noted as well.

Limited as they are, these accomplishments are based on several concepts to which both sides have essentially agreed — *i.e.*, parity as a criterion for regulating the level of superpower military forces; acceptance of mutual vulnerability and its associated mutual dependence; and the link between offense and defense. In a few instances, institutions have been created to implement agreements over extended time — for example, the Standing Consultative Commission to implement compliance with arms control agreements. Concepts have been agreed upon, at least in a



vaguely formulated way, to govern continuing negotiations over the long term.

With very good reason, much attention has been given to the step-by-step development of ways to implement shared interests in avoiding accidental war. One landmark in this effort is the upgrading of the hot line in 1984. The establishment of the Nuclear Risk Reduction Centers in 1987 is another. Perhaps the most remarkable and enduring landmark is the Incidents-at-Sea Agreement of the early 1970s. Dangerous encounters between the two navies, which occurred very frequently prior to this agreement, have now been moderated and constructively regulated by explicit agreement covering most though not all encounters. (Conspicuously absent from the agreement is the regulation of submarine contact.) This agreement has been pursued in a highly professional way by the two navies even during periods when the overall political relationships deteriorated badly. There is now interest in developing “rules of the road” to avoid other kinds of dangerous incidents—such as those that could occur in space.

Nuclear nonproliferation efforts provide similar experience. A multilateral arrangement has been worked out involving specific rules and institutions. Within this framework there are regular bilateral talks between the United States and the Soviet Union. Here again, U.S.-Soviet cooperation has persisted because of shared mutual interest in avoiding the worldwide spread of nuclear weapons.

A few additional agreements can only be noted in passing—to indicate the variety of cooperative efforts that were pursued even in very difficult times. These include the multilateral agreement on Antarctica; the outer space treaty involving both military and civilian utilization of space; the agreement prohibiting nuclear devices on the bottom of the ocean; and the agreement in the 1950s to establish Austria as an independent, neutral nation.

Many pieces of U.S.-Soviet security cooperation are thus in place; but there are also many obvious gaps. The greatest danger is being drawn into an unexpected, major crisis in a highly sensitive area such as Europe or the Middle East. A crisis in either place would probably be less controllable than was the Cuban Missile Crisis—itself a very dangerous episode about which a good deal of new information has recently become available.

Increasingly, therefore, the United States and the Soviet Union have come to recognize that they must manage their rivalry in ways that do not risk nuclear war or other destructive outcomes. There is growing interest in working toward a more generally cooperative, orderly, predictable, and stable U.S.-Soviet relationship, within which competition would continue and tensions would continue to arise but the nuclear danger would be greatly diminished. Competition between the rival systems for world leadership would concentrate not so much on fire power as on economic and political freedom, intellectual vitality, cultural expression, human relationships, and quality of life.

Future developments that threaten both superpowers may well strengthen the incentives for cooperation. These include the continued proliferation of nuclear weapons; the proliferation of other technologies posing grave dangers such as those involved in intermediate-range missiles, chemical warfare, and biological warfare; terrorism, especially in its technologically enhanced forms; conventional wars of great destructive power between third parties that tend to involve the

superpowers; and severe environmental degradation spreading across the northern hemisphere or indeed the entire world. Other incentives to cooperate may stem from wider economic relations and from broad scientific, scholarly, cultural and people-to-people exchanges.

### **Crisis management, crisis prevention, and basic U.S.-Soviet relations**

In 1978 it was my privilege to convene in Geneva, under Pugwash auspices, a workshop on crisis management and crisis prevention involving scientists and scholars from a variety of countries but principally the United States and the Soviet Union. By then there was a cumulative record of analytical studies from which one could derive some tentative conclusions about the tasks of crisis management. These studies addressed questions of utmost gravity. How is it possible to emerge from a crisis in the 20th century without a disastrous war, let alone a nuclear war? If crises were to arise again, as well they might, what principles could leaders follow in order to get out of the crisis intact?

To workshop participants it became clear that the immense strains of international crisis, and above all nuclear crisis, would test the limit of human capacity to adapt and to behave in ways that could avoid catastrophe. Whatever the level of armaments, and whatever the animosity of the superpowers, it would seem, therefore, a matter of prudent self-interest to keep back a step or two from the brink of nuclear crisis, because the tasks of crisis management are so exceedingly difficult and perhaps beyond human ingenuity in the long run. With these realizations, we shifted in the course of those several days in Geneva to a consideration of crisis *prevention*.

Crisis prevention deals with finding ways to decrease the likelihood that nuclear weapons will be used. Such efforts can be valuable in avoiding the ultimate catastrophe regardless of the level of nuclear stockpiles or the nature of U.S.-Soviet competition. Some of the main principles of crisis prevention can be stated concisely: 1) Avoid subjecting each other to nasty, unpleasant surprises; 2) reach agreements to deal effectively with predictable sensitive and potentially explosive situations; 3) clarify vital interests in touchy situations; 4) strengthen institutional mechanisms that provide professional exchange of information and ideas on a regular basis regarding issues that could readily become highly dangerous. These measures are not a substitute for arms control or for improvement in the general U.S.-Soviet relationship, but they are at least an antidote to complacency and a prudent, practical response to visible risks.

After this conference, I encouraged my principal collaborators, Graham Allison and Alexander George, to intensify contacts with Soviet scholars to follow up the ideas that emerged in Geneva. They did so with vigor and imagination. George and his collaborators pursued these ideas in their landmark book, *Managing U.S.-Soviet Rivalry*, which provided many insights into ways that a crisis prevention approach could diminish the nuclear danger.

The year 1982, when I undertook the presidency of Carnegie Corporation, was a time of severe strain in U.S.-Soviet relations. The Soviet invasion of Afghanistan in 1979 had led to a new round of the cold war. The possibility of a nuclear crisis



was vividly apparent, at least to those of us who had been working in this field. So one of my first acts after coming to the foundation was to encourage a remarkable group of scholars at Harvard University to undertake a broad-gauged, interdisciplinary project on avoiding nuclear war. In connection with that project, we formed a joint study group of U.S. and Soviet scholars on crisis prevention. With Graham Allison the chair of the U.S. group and Georgi Arbatov the chair of the Soviet group, a regular series of meetings was held alternating between the two countries. Progress was slow but worthwhile. After Gorbachev came to power, we began to explore the “new thinking,” feeling our way beyond crisis prevention to consideration of basic improvements in U.S.-Soviet relations. How could such avenues be usefully explored or even facilitated by U.S. and Soviet scholars? In due course, shared experience and *glasnost* made possible a joint book, *Windows of Opportunity*, published early in 1989. To my knowledge, the book is unusual in that the papers reflect joint work by U.S. and Soviet scholars in considerable depth over an extended period of time. (Since the project began, the Soviet participants and the American participants have both become much more significant advisors to government leadership.)

Upon completion of the book, the scholars formulated a joint statement drawing on the lessons of their work for the next phase of U.S.-Soviet relations. Their study, they stated, proposes a guiding concept by which the U.S. and the Soviet Union can coexist in the coming decades: sustainable peaceful competition with the prospect of increasing cooperation. In sum, this means moving toward demilitarizing and regularizing the competition — cooperating where our interests are shared, competing in areas of value without threat of war.

In condensed form, these are the guidelines for coexistence agreed upon in the study — guidelines that are now rooted in the relationship:

- 1) Realism in recognizing facts; common sense in analyzing implications. If war between the United States and the U.S.S.R. were to destroy both, what would follow? A simple, common-sense approach to constrain those dimensions of competition that risk war. . . .
- 2) Recognition of each other — as sovereign states, as legitimate governments, as nations that have equal rights, and as coequal great powers (at least in the military dimension), which therefore shoulder a special responsibility. . . .
- 3) Recognition of the real differences that divide the two nations. . . .
- 4) Regular communication and consultation. Traditional diplomatic channels of communication have been expanded by upgraded hot lines between heads of state and regular summits that help leaders and their subordinates understand each other’s views, hopes, and fears. Regular meetings between heads of state, and even more frequent discussions among secretaries of state, secretaries of defense, military chiefs, and lower levels will also help to clarify vital interests, reinforce a common understanding of constraints, and permit the identification of issues on which parallel action or agreements can advance both parties’ interests.
- 5) Negotiation of agreements, on a case-by-case basis in a business-like manner,

which advance each party's conception of its own interests. Arms control will remain at the top of the negotiating agenda because preventing nuclear war is the overriding common interest. Steady steps to reduce risks help build a peaceful relationship in other dimensions. Agreements to limit regional conflicts, permit trade and investments, and allow greater scientific, technical, cultural, and human exchange permit each side to realize more of its own interests.

6) Establishment of institutions and procedures to make agreements operational. Bilateral institutions and procedures such as the Standing Consultative Commission and the Nuclear Risk Reduction Centers provide mechanisms for interpreting and enforcing agreements. Multilateral institutions and procedures, such as the Conference on Security and Cooperation in Europe, the International Atomic Energy Agency for nonproliferation, or the United Nations Security Council Secretary General's office for peace-keeping function, can often be even more effective in settings that engage independent interests of many sovereign states.

7) Respect for human rights at home and abroad. Building on the United Nations Charter, the Universal Declaration of Human Rights, and the Helsinki Final Act, furthering efforts to improve human rights without exaggerated publicity or propaganda and contributing to a sustainable relationship. . . .

The group also agreed upon seven key "windows of opportunity":

1) Restructuring and reducing military forces to operationalize the principles of nonuse of force, or the threat of force. . . .

2) Eliminating the capacity for surprise attack or major offensive operations (an immediate objective), by agreeing on which weapons pose the greatest threat of a first strike and eliminating them. Reducing military expenditures both unilaterally and by agreement. . . .

3) Resolving regional conflicts through consultation and cooperation. . . .

4) Preventing unintended incidents (where possible); minimizing the impact of accidents (where unavoidable). Unintended incidents like the KAL 007 shoot-down could have been prevented by agreements like the North Pacific Air Safety Agreement, which was signed in its aftermath. Such agreements "on rules of the road" could reduce risks of unintended incidents in the air over other regions, in space, and in other arenas. Where accidents unavoidably happen, their impact could be minimized by thinking ahead, unilaterally and jointly, about appropriate responses—for example, to the first case of nuclear terrorism or an unidentified detonation of nuclear weapons. The Nuclear Risk Reduction Centers provide a mechanism for joint study of ways to minimize the impact of accidents.

5) Expand confidence-building measures that increase transparency, establish "trip wires" that would have to be triggered in preparation for war, and thus allow each party to base its plan for peace on the other's capacities, not just on stated intentions. Specific measures should include rigorous verification of agreements and unilateral adjustments in forces; positioning permanent international



inspectors at militarily important arms depots, airfields, fuel dumps, rail heads and perhaps even command and control centers; specific constraints on forward deployment of tanks, artillery, bridging and mine-clearing equipment, and establishment of zones and corridors free of weapons necessary for offensive military operations; and year-in-advance schedules for mobilization of forces. . . .

6) Rejecting terrorism in principle and in fact by active cooperation to combat terrorism in all its forms, including the preparation, military training, and supply of terrorists.

7) Stopping the spread of nuclear weapons, ballistic missile technology, chemical and biological weapons, and other means of mass destruction by international agreements; informal cooperation to control the supply of critical technologies; and sanctions.

### Exploring emerging opportunities

The United States can thoughtfully explore the practical implications of Gorbachev's new thinking, not assuming that he has a grand plan worked out in rich detail, but rather that he is making serious efforts to clarify his concepts, to adapt them to contemporary reality, and to translate them into action. The democratic nations can test the extent to which he is open to a constructive interplay with them as his experience evolves. Such testing can occur in a variety of dimensions of the U.S.-Soviet relationship, including arms control, regional conflicts, human rights, and participation in international institutions.

In light of Gorbachev's views on mutual security, "reasonable sufficiency," and related matters, he can appropriately be asked to pursue a long-term accommodative arms control policy on which he has made such a constructive start. In general, he should work his way toward reducing the scale and slowing modernization of the Soviet military. This is not asking him to undertake unilateral disarmament or to invite occupation by Western forces. But it is asking him to indicate unambiguously that the end has come to the unremitting buildup of military forces, which has added so much fuel to the fire of the cold war. He should now be prepared to restructure his nuclear arsenals in ways that minimize the possibility of surprise attack. Among other things, this would mean eliminating the first-strike weapons that pose the greatest danger—heavy land-based missiles.

Since 1987 Gorbachev has been talking reasonably about eliminating the capacity for surprise attack and for major offensive operations. He recognizes that this will require asymmetrical reductions in conventional forces where there are imbalances. The most threatening imbalances—for example, the massive tank formations in central Europe—must be given highest priority, as he recognized in his December 1988 speech to the United Nations.

Even more quickly, it should be possible for the Soviets and Americans to strengthen confidence- and security-building measures that increase transparency and constrain dangerous military activity. Essentially this is a functional or operational approach to conventional arms control in a crisis prevention mode. It would include placing permanent international inspectors at arms depots, fuel storage facilities,

air fields, and critical railroad areas. In addition, it would provide for explicit limitations on forward deployment of equipment with threatening offensive potential such as tanks, bridging artillery, bridging and mine-clearing equipment; and it would include agreed-upon schedules for mobilization of forces, perhaps one year in advance. Additional special communications and notifications might well be appropriate to avoid nasty surprises. The central point is that it would be possible to move quickly toward a situation in which surprise attack would be virtually out of the question, even before the levels of weapons and manpower have been greatly reduced.

## **Beyond Gorbachev**

As we look through the windows of opportunity, we must find ways to see beyond Gorbachev. What we seek is a much safer world for the long term. How can we bolster or institutionalize agreements and changes in practice so as to stabilize them across administrations in both countries? What do we need to understand about the Soviet Union in order to diminish the risk that such beneficial changes will disappear when Gorbachev goes? This is an urgent task for scientists and scholars as well as diplomats and military leaders.

Careful study of the lessons learned from hard experience in previous competition and cooperation can be helpful. But the drastic rate of world transformation creates new circumstances that must be faced by leaders in both countries. One area of experience that can be strengthened in the years immediately ahead is the establishment of institutions and procedures to make agreements operational and durable—some of which have been touched on in this essay. They include bilateral institutions and procedures, such as those of the Standing Consultative Commission and the Nuclear Risk Reduction Centers; also multilateral institutions such as the International Atomic Energy Agency for nonproliferation and the United Nation's Security Council/Secretary General's office for peacekeeping functions; the resilient Incidents-at-Sea agreement is instructive in this context as well as the recent, far-reaching verification agreements of the INF treaty. Confidence- and security-building measures in Europe could provide a major advance of the same sort. In all such cases, we need to work out patterns of interaction that become deeply embedded, highly visible, and very difficult to undermine, let alone reject, once they are well established.

For the long term, it is also useful to deepen our understanding about structural factors and recent historical changes that must influence Soviet behavior, regardless of who follows Gorbachev. An educated middle class has emerged as a major force in the Soviet society and economy. In contrast with Stalin's day, about two-thirds of the Soviet people now live in cities and are relatively well-educated. Their technical, organizational, and managerial skills are of growing importance. Moreover, this segment of Soviet society has had increased exposure to the outside world in the past two decades—and especially since Gorbachev came to power. Their impact is profound. To modernize the economic system and its technological base, the leadership must in effect negotiate a new social compact with this elite. To do so requires some recognition of the individual human person and of social



diversity going well beyond prior attitudes of the Soviet leadership.

Several factors have been identified by scholars such as Robert Legvold that are likely to influence Soviet policy regardless of individual leadership personalities:

- 1) The dynamism of the capitalist countries in economic and technological matters;
- 2) the worldwide contagion of democracy;
- 3) the deep problems of the developing countries and the unprofitability of most Soviet adventures in these countries since the 1970s;
- 4) the shift toward a multicentric world in which a variety of countries have economic and even military power;
- 5) world interdependence in economic, environmental, and social relations;
- 6) the severe limitations of nuclear weapons as military instruments in terms of actual use;
- 7) the widespread revulsion within and beyond the Soviet Union toward Stalinist behavior.

There is evidently widespread dissatisfaction in the Soviet Union with current conditions and a desire to achieve a better standard of living and ease the harshness of repressive government. Toward these ends, Gorbachev and other Soviet leaders are engaged in a massive effort to reform the economy and the society. One tangible manifestation is their ceaseless travel to various parts of their vast country to build support for reform. The internal demands on leadership time and energy are formidable. From this alone, it is not difficult to see why surcease from external pressures would be welcome.

For most of these purposes, the Soviet Union needs substantial, long-term contact with democracies that have the most dynamic economies and technically advanced societies. This need provides an ongoing opportunity to reinforce favorable trends in the Soviet Union. No one can accurately predict how strong this influence might become, but it does not appear to be trivial. The process will be long and tortuous. A great deal of problem-solving will have to be done, and no precise blueprint is available. The first priority in international relations must be to pursue incessantly the avoidance of massive slaughter by nuclear weapons and other dangers in a high-tech world of unprecedented destructive capacity.

In all of this, the scientific and scholarly communities have a special responsibility. They are probably the closest approximation we now have to a truly international community, sharing certain fundamental interests, values, and standards. The shared quest for understanding is one that knows no national boundaries, has no inherent prejudices, no necessary ethnocentrism, and no intrinsic barriers to the free play of information and ideas. Science can contribute to a better future by its ideals and its processes as well as by the specific findings of research. Analytical work meeting high standards of objectivity can provide the best chance to get complex facts straight on vital issues. Such efforts can be helpful to open-minded policymakers and also to a broadly informed public by clarifying the great dilemmas of our time and the policy choices bearing on them.

At present such analytical work is proceeding in the United States and the Soviet Union, especially on arms control; increasingly, there is in-depth communication between analytical groups in the two nations. As indicated, even some joint work of a collaborative nature is being done. In both countries, too, analytical groups now have reasonable access to top-level government leaders. Remarkably, on a few occasions they have had access to high-level leaders in the other country. In short, a dynamic interplay between scholars and policymakers is emerging in the United States and the Soviet Union — as well as some other nations — that could help substantially in the long run to carry out complex problem-solving in such vital areas as arms control, conflict resolution, economic development, and environmental problems.

Work to clarify paths and facilitate major changes in East-West relations that could make the world a much safer and better place will require great care and deliberation. Caution and prudence will be essential to make sure that promising changes are real and durable and that moves made with good intentions do not inadvertently become counterproductive. Concomitantly, this new era will require vision, courage, and deep insight; also willingness to conduct carefully designed experiments, monitor their progress, and make mid-course corrections. Perhaps hardest of all will be the overcoming of stereotypes, reconsideration of prejudices, and persistence in the face of difficulty over the years. People from many backgrounds and nations who have leadership responsibilities bearing on nuclear dangers will have to be capable of recognizing important changes when they occur and be flexible enough to capitalize on emerging opportunities.

As we approach the high-tech 21st century with prospects of immense benefits for people everywhere — along with unprecedented destructive capabilities — the U.S.-Soviet relationship has unique significance. The two nations have begun a process of profound intrinsic worth — major reduction of the nuclear danger. But their bilateral relationship is also important as a model of the management of international relations in adversarial situations throughout the world.

For decades this has been the quintessential international conflict. Both nations have the capacity to destroy all of humanity; they hold each other and all the planet hostage; yet they have stepped back or stayed back from the brink time and again. It is just possible that the lessons of this experience will be useful for people all over the world in coping with conflict short of mass violence. Now perhaps, the two nations are beginning to think not only of managing the conflict without disaster but even of resolving it. To the extent that there is visible movement in this direction, the world will surely notice and rejoice.

And yet, with all the technical capabilities, tangible benefits, and unprecedented opportunities available to human beings at the end of the 20th century, we are nevertheless:

- 1) In danger for the first time ever of extinguishing the human species in a nuclear war;
- 2) living in a world in which almost half the people subsist in abject poverty under crushing burdens of illness, ignorance, and disability;
- 3) immersed in an ancient sea of prejudice, ethnocentrism, and violence — now

amplified greatly by modern weapons and telecommunication technology;

4) generating a growing underclass of people gravely damaged for life — paradoxically set in the midst of unprecedented affluence;

5) degrading the planet's environment in ways that could have profound long-term significance.

In an age transformed by science and technology, in which international economic cooperation will be needed for prosperity and in which the capacity for destruction is so immense, these new realities should offer powerful incentives to turn away from hatred and violence.

The time has come to mobilize human talent, ingenuity, and dedication to address our fundamental problems and fulfill the potential of opportunities our ancestors never had. This peaceful mobilization will be the greatest human challenge to be met in the 21st century.

A handwritten signature in dark ink, reading "David A. Hamburg". The script is fluid and cursive, with the first name "David" and last name "Hamburg" being more prominent than the middle initial "A.".

*President*



## REFERENCES

These publications represent deep knowledge and experience on problems of avoiding nuclear war and coping with international conflict in the nuclear era. Those marked with an asterisk are especially pertinent to the present essay. I express my deep gratitude to the authors who have contributed so much to the understanding of these critical problems.

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# *Report on Program*





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# *List of Grants and Appropriations*

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During the year ended September 30, 1988, the trustees approved 253 grants and appropriations, amounting to a total of \$40,561,550. There were 250 grants, including 79 to schools, colleges, and universities and 171 to other organizations. Three appropriations were made for projects administered by the officers.

The charter of the Corporation provides that all funds are to be used to promote "the advancement and diffusion of knowledge and understanding." Grants must be broadly educational in nature, but they need not be limited to the formal educational system or to educational institutions. The foundation makes it a policy to select a few areas in which to concentrate its grants over a period of years.

The Corporation operates grant programs in four broad areas. The first is Education: Science, Technology, and the Economy. The second is Toward Healthy Child Development: The Prevention of Damage to Children. The third is Strengthening Human Resources in Developing Countries. The fourth is Avoiding Nuclear War. Grants that do not fit easily into these categories are listed in Special Projects. The following pages describe the major grants made during the year. Grants of \$25,000 or less are listed at the end of each subcategory with a brief statement of purpose.

There is no formal procedure for submitting a proposal. Anyone seeking support for a project with one of the goals stated above should submit a brief statement describing the project's aims, methods, personnel, and the amount of financial support required.

On the basis of this preliminary statement, officers will review the proposal in light of their knowledge of the field and in relation to the Corporation's current programs' priorities. If they decide to evaluate the project for funding after review, a more developed project proposal will be requested. Normally, it would have the following elements: the purpose, goals, work plan, duration of each phase, personnel required, detailed budget, amount requested, sources of funds, *curriculum vitae* of key personnel, and an executive summary. Before a grant could be made, additional materials would be required, including a formal request from the head of the institution involved.

The foundation does not operate scholarship, fellowship, or travel grant programs; nor does it make grants for basic operating expenses, endowments, or facilities of educational or human service institutions.

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## *Education: Science, Technology, and the Economy*

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The program, Education: Science, Technology, and the Economy, builds on the Corporation's long-term interests in the education of school-age children, college students, and adults and in access to high-quality education by minority-group members and girls. The aim is to help all Americans, but especially young people, deal constructively with the scientific and technological transformations under way in American life. The program has three areas of concentration. The first promotes the improvement of education in science, mathematics, and technology at the precollege level through more effective uses of new technologies; through the linkage of science-rich sectors, such as industry, universities, and governmental laboratories, with the schools, particularly those in disadvantaged communities; and through curriculum development in science, math, and technology. The foundation also supports television programs and science reporting to improve science education generally.

The second major emphasis is on improving the access of minority-group members and girls to high-quality education in science, mathematics, and technology. There is a danger that a national preoccupation with science education will widen the distance in achievement between advantaged and disadvantaged students. If more girls and minority-group members are to become part of the economic mainstream, they will need better understanding of math and science. Even for people in jobs not requiring technical training, basic knowledge of science and technology will be important. The Corporation is therefore supporting new instructional approaches that will encourage these groups to study mathematics and science in secondary school and to consider careers in scientific fields. It is also supporting projects that alert policymakers, educators, and community representatives to the importance of strong educational programs in mathematics and science for minorities and girls.

The third area of concentration is educational reform, with a special emphasis on improving the caliber of teachers in the nation's elementary and secondary schools and on improving the conditions under which they work. The reform movement began several years ago with the concerns of business and political leaders about America's ability to compete economically in an interdependent world. The Corporation's grantmaking includes a variety of efforts to make teaching careers more attractive to academically well-qualified students. Major support is being given to the National Board for Professional Teaching Standards and to projects aimed at upgrading the education of future teachers, restructuring schools, and recruiting minority-group members into the profession.



National Center for Education and the Economy

\$200,000

In 1985 the Corporation established the Carnegie Forum on Education and the Economy in response to growing concern among governors and business leaders that the nation's economic future was directly linked to the quality of education and that the American education system sorely needed improvement. During the past three years the forum, operating from an office in Washington D.C., served as the chief policy arm of the Corporation's grant program, Education: Science, Technology, and the Economy. The forum's Task Force on Teaching as a Profession, chaired by Lewis M. Branscomb, produced the influential report, *A Nation Prepared: Teachers for the 21st Century*. The forum also initiated two ongoing projects, the National Board for Professional Teaching Standards and the National Governors' Association Center for Policy Research, both of which are described below. This year, much of the forum's work was incorporated into the Corporation's grant-making activities in education reform. Several areas of concern, including the role of the federal government in education, are being pursued independently by the National Center for Education and the Economy, whose president, Marc S. Tucker, was executive director of the forum. This one-year grant is helping the center to cover initial operating expenses and to pursue other sources of funding.

National Board for Professional Teaching Standards

\$1,000,000

In 1987 the Corporation made a \$1,000,000 grant to help establish the National Board for Professional Teaching Standards, which is seeking to set criteria for the voluntary certification of elementary and secondary school teachers beyond the minimum state licensing requirements. Within five years the 63-member board expects to begin certifying teachers nationwide, an undertaking that requires considerable advance preparation. The board, under the leadership of former North Carolina governor James B. Hunt, is composed of teachers, school administrators, other education specialists, state and local officials, and members of the business community. During this second year the board has been organized into three working groups. One is determining the certification standards that teachers will be expected to meet at various grade levels; another is dealing with the means by which teacher competence can best be assessed; and the third is addressing new educational systems and policies that must be encouraged to maximize the impact of well-qualified teachers. A program to inform the public about the purpose of teacher certification is being planned, and a fundraising drive is under way to procure additional funds needed to begin the certification process.

National Governors' Association Center for Policy Research

\$691,000

The National Governors' Association (NGA) Center for Policy Research is working to help implement the recommendations of two major reports on education, *A Nation Prepared: Teachers for the 21st Century*, by the Carnegie Forum's Task Force

on Teaching as a Profession, and the NGA's own *Time for Results: The Governors' 1991 Report on Education*. This one-year grant renews Corporation support of the NGA's efforts to improve schools. The NGA's report, *Restructuring the Education System: Agenda for the '90s*, outlines specific issues state policymakers must address in advancing school reforms. The NGA has begun serving as a clearinghouse and technical assistance center for state governments and local school districts seeking to implement new programs. It convenes seminars for school leaders and offers matching grants to selected school districts that are actively engaged in reforms consistent with the forum's and the NGA's recommendations. Michael Cohen directs the project.

### **American Association for Higher Education**

**\$545,000**

American college presidents have the capacity to generate wider interest among college students in pursuing teaching careers and to provide better training for those students during the course of their undergraduate and graduate careers. In September 1987 Donald Kennedy, president of Stanford University, assisted by Russell Edgerton, executive director of the American Association for Higher Education (AAHE), convened a meeting of 37 college and university presidents. An open letter from the attendees to their colleagues at large, calling for new commitments to the professionalization of teaching, was endorsed by an additional 211 college and university presidents. Under the joint sponsorship of the AAHE, the American Council on Education, and the Education Commission of the States, Kennedy and Edgerton are using this two-year grant to organize six regional conferences for the presidents, culminating in a national conference. The presidents will develop specific agendas for improving the preparation of teachers on their campuses. Follow-up activities are planned, along with a final report and a newsletter that will be distributed periodically to educational leaders.

### **Texas A&M University**

**\$248,000**

While the Corporation-sponsored National Board for Professional Teaching Standards works to establish a reliable means of certifying able teachers, the education of future teachers also requires close and immediate attention. This one-year grant is helping Daniel Fallon, dean of the College of Liberal Arts at Texas A&M University, and Frank B. Murray, dean of the College of Education at the University of Delaware, to embark on a project designed to facilitate collaborations between departments of arts and sciences and of education at 30 selected colleges and universities. Their ultimate goal is to forge new programs of teacher education that will provide a strong background in the arts and sciences as well as in education theory and practice. At a conference in the fall of 1988, each institution involved presented preliminary ideas for the development of new curricula linking arts and sciences with education. Subsequent work will involve the implementation of these ideas and production of a book detailing the entire project.



The Coalition of Essential Schools, based in the education department at Brown University, is a network of secondary schools committed to the adoption of a more personalized system of education, with reduced teacher-to-pupil ratios, a flexible school structure designed to stir teachers’ imaginations, and greater attention to individual students’ needs. Four years after its founding with Corporation support, the coalition includes 49 schools, each of which has developed reforms appropriate to its own circumstances. This grant for the coming three years is helping the coalition establish regional counterparts based in California, Texas, and New York. Over \$1.3 million has been contributed by the Charles E. Culpepper, Danforth, and Exxon Education foundations. As it expands, the coalition will work with the Education Commission of the States to establish state-financed coalitions as well. The hope is that all coalition activities eventually will be administered and financed entirely by state governments and by the school districts themselves.

The United States government is the predominant source of funding for university-based research in science and technology. Increasingly, advanced technological research produces results that are valuable both to the military and the commercial sector. It is important that the government’s considerable expenditures on research and development in universities benefit both national defense and the economy to the maximum possible extent. A group of Harvard University scholars headed by Lewis M. Branscomb, director of the Science, Technology, and Public Policy Program at the John F. Kennedy School of Government, is using this three-year grant to study national investment policy concerning the development of technologies with military and commercial applications. The group plans to produce a series of case studies of specific “dual-use” technological research programs currently being funded by the government, focusing particularly on ways in which the government can best nurture this country’s scientific and engineering capacity. The case studies ultimately will be collected in a book disseminated to senior government officials, leaders in industry and higher education, and the public.

The Berkeley Roundtable on the International Economy (BRIE), an interdisciplinary group of scholars chaired by Stephen Cohen and John Zysman at the University of California, Berkeley, was originally set up to analyze ways in which international trade and the technological revolution are restructuring the American economy and to illuminate the critical role that education and training must play if the United States is to remain economically competitive in a rapidly changing world. In its first two years, BRIE has produced several books, notably Cohen’s and Zysman’s *Manufacturing Matters: The Myth of the Post-Industrial Economy*, and a number of studies and articles. This one-year grant, added to the Corporation’s previous support, is helping to cover BRIE’s general operating expenses. Members

of BRIE expect to produce books and studies on production reorganization in producer services, telecommunications, semiconductor, consumer electronics, and apparel/textile industries, among other topics.

Teachers College, Columbia University

\$75,000

Rapid technological advances, growing public concern over America’s ability to produce an appropriately educated workforce, and the changing composition of the American population are only several reasons for reassessing the federal government’s role in education. This two-year grant is helping to fund a series of conferences on the subject led by Francis Keppel, former United States Commissioner of Education; Michael T. O’Keefe, president of the Consortium for the Advancement of Private Higher Education; and Michael P. Timpane, president of Teachers College, Columbia University. Papers for the conferences will focus in particular on the specific requirements for an educated workforce and the strengths and weaknesses of federal education programs during the past 20 years. Consideration will be given to the nature of the federal role in education in the future. Conference findings and recommendations will be widely distributed among federal officials and their staffs.

Discretionary Grants

<i>Community Colleges of Spokane</i> , toward planning a program of critical thinking and communication skills for community college students	\$25,000
<i>Education Development Center</i> , toward meetings on teacher networks and educational improvement	\$25,000
<i>Federation of Behavioral, Psychological and Cognitive Sciences</i> , toward support of a series of science and public policy seminars	\$25,000
<i>George Keller</i> , toward research and writing on changes in higher education required by new conditions in American society	\$25,000
<i>University of Southern California</i> , toward a conference of researchers on school finance issues	\$20,000
<i>National Humanities Center</i> , toward radio programs on education	\$16,500
<i>Southern Growth Policies Board</i> , toward a conference on a regional plan for science and technology policy	\$16,000
<i>Council for Advancement and Support of Education</i> , toward dissemination of the report of the National Task Force on Higher Education and the Public Interest	\$10,000



American Association for the Advancement of Science

\$700,000

In February 1989 the American Association for the Advancement of Science will release reports from “Project 2061” establishing the requirements for preparing today’s schoolchildren for adult participation in a world dramatically changed by science and technology. The project was initiated in 1986 under a Corporation grant. Panels of scientists, engineers, and scholars were convened to delineate the knowledge that should be possessed by all future high school graduates in five areas: the biological and health sciences; the physical and engineering sciences; the social and behavioral sciences; technology; and applied mathematics. The finished reports based on their work completed phase one of the project. In the project’s second phase, funded with this four-year grant, “Project 2061” will focus mainly on the development of curriculum plans. During phase three, five selected school districts will adapt the plans to their existing curricula in an attempt to meet the “Project 2061” goals for science education. The experience of the five schools will, in turn, serve as the basis for new instructional materials and new testing procedures.

Stanford University

\$513,000

The Program on Human Biology at Stanford University is an interdisciplinary undergraduate major that integrates the biological and behavioral sciences. This 18-month grant is helping H. Craig Heller, professor and chairman of the Program on Human Biology, and Herant A. Katchadourian, professor of psychiatry and human biology, direct development of a detailed outline of a curriculum adapted from the human biology program, to be aimed at young adolescents in the middle grades. Six disciplinary groups, each composed of Stanford faculty members and local middle and high school teachers, are meeting to work on aspects of the curriculum plan. Their subjects include ecology, evolution, and genetics; cell biology; physiology; human development (cognitive, psychological, social); society and culture; and health and safety. A seventh group of experts in education will present this curriculum to parents and the education community at large. They expect to produce a master plan for a two-year middle grades human biology curriculum and a training course for teachers to include videotapes of human biology core course lectures, with accompanying background and study guides. Each videotaped lecture will be an independent unit that can be used by itself or as an integral part of the overall curriculum. As it develops, the curriculum is being tested with local teachers and their classes and revised accordingly.

Children’s Television Workshop

\$300,000

In 1986 the Corporation made a grant to Children’s Television Workshop (CTW) to help fund production of *Square One TV*, a new daily public television series on mathematics and problem solving aimed at eight- to twelve-year-olds. This one-year grant is helping CTW produce a second season of *Square One TV*. CTW plans

to include segments that focus explicitly on problem solving and direct encouragement of viewer participation. It also plans to expand program content covering functions, simple algebra, logic problems, and probability and statistics. CTW's Community Education Services division will continue to produce teacher guides and to distribute promotional information and support materials to parents, youth service organizations, and other community groups. Other funders of *Square One TV's* second season include the National Science Foundation, the Corporation for Public Broadcasting, the Andrew W. Mellon Foundation, and International Business Machines Corporation, all of which helped support the project from its inception.

### **National Academy of Sciences**

**\$287,000**

At the request of national professional organizations in mathematics and mathematics education, the Mathematic Sciences Education Board of the National Research Council, an agency of the National Academy of Sciences, was created in 1985. It is chaired by Shirley Hill, professor of mathematics and education at the University of Missouri, Kansas City. This one-year grant is financing one of the board's activities, the design of revised mathematics curricula for elementary and secondary schools. Under the leadership of executive director Marcia P. Sward, experts in mathematics and education are developing a system of mathematical "strands" that will run through a child's schooling from kindergarten through grade 12, offering increasingly advanced training in numeracy, symbols, geometry, chance, logic, and mathematics in science. They are also attempting to determine how these "strands" can be incorporated into existing school curricula, with pilot projects to be initiated in selected school districts to test the effectiveness of the modified courses.

### **Carnegie Mellon University**

**\$201,500**

The Inter-University Consortium for Educational Computing (ICEC), based at Carnegie Mellon University, was created in 1983 with a grant from the Corporation. Its two main objectives are to promote the widespread use of advanced-function computer work stations in higher education and to lead in the development of high-quality educational software to run on these machines. During its first three years, ICEC helped create new authoring systems and tools that enable individuals without programming experience to develop educational software on their own. A second Corporation grant in 1987 enabled ICEC to hold intensive workshops for faculty members, training them to develop their own educational software. This grant is supporting ICEC's efforts over the next three years as it distributes its programs to interested colleges on a subscription basis. ICEC's staff, based at Carnegie Mellon, is offering direct consultation and training to faculty developers at their home campuses. The staff operates a toll-free hotline to answer questions regarding the use of hardware and the use and production of software. ICEC also collects, catalogs, and distributes the software developed by member institutions.

American Association for the Advancement of Science

\$194,000

With Corporation support in 1984, the American Association for the Advancement of Science (AAAS) established the National Forum for School Science. Led by Audrey B. Champagne, senior program director in the AAAS Office of Science and Technology Education, the forum seeks to interest scientists, educators, advocates, government officials, and representatives of business, labor, and the media in revising and broadening school science education. The forum sponsors annual colloquia on science education, focusing on existing educational practices and proposals for future directions. It also publishes annually *The Year in School Science*. This three-year grant is helping stage a second cycle of colloquia.

American Society of Zoologists

\$162,330

Since 1983 the American Society of Zoologists has been holding annual symposia, called "Science as a Way of Knowing," for high school and college biology teachers. The aim of these symposia is to acquaint faculty members with new knowledge and developments in the field of biology. Each symposium deals with one of seven specific areas: evolutionary biology, human ecology, genetics, developmental biology, form and function, cell and molecular biology, and neurobiology and behavior. The first four have been covered under a previous Corporation grant. This three-year grant is helping to underwrite symposia in the remaining three areas. Reports on each symposium are subsequently published in *American Zoologist*, the society's professional journal. At the end of the seven-year cycle John A. Moore, a biologist at the University of California, Riverside, and chair of the society's education committee, will produce two summary monographs, *A Conceptual Framework for Biology*, and *Science as a Way of Knowing: Its Nature and Applications*.

Nebraskans for Public Television

\$150,000

*Reading Rainbow* is a public television series for children that emphasizes the fun and excitement of reading. First aired in 1983, it is broadcast primarily during the summer, when beginning readers tend to lose their newly acquired skills from the previous school year. In 1985 the Corporation provided partial support for five *Reading Rainbow* segments based on science books. With this one-year grant, the Corporation joins the National Science Foundation in funding eight new science programs out of a projected total of thirty segments. Corporation funds are also being used to promote distribution of a teachers' guide for the science programs. *Reading Rainbow* is produced cooperatively by the Great Plains Instructional Television Library, a division of the Nebraska Educational Television Network, and WNED-TV, the public television station of Buffalo, New York. Nebraskans for Public Television is administering the grant.



Many schools and individual teachers are underprepared to teach science to children growing up in an increasingly technological world. Regional reform movements are now under way, a number of which involve alliances between schools and such institutions as colleges, museums, and businesses. In an effort to assist such programs on a national level, the National Science Teachers Association formed the Triangle Coalition for Science and Technology in 1983. The coalition, composed of scientists and engineers, business leaders, and educators, holds regional conferences and provides consultation for new and established alliances. It also produces a bimonthly newsletter, *The Alliance Network News*, which reaches 1,900 individuals and organizations. Among the coalition's 62 current members are the DuPont, International Business Machines, and General Electric corporations, the American Association for the Advancement of Science, and the Council of Chief State School Officers. This two-year grant renews a previous Corporation grant for the coalition's consultation service and newsletter, and in addition is supporting planning of regional conferences in the Northwest and California and a working conference to develop ideas for furthering science education reform in rural areas.

Discretionary Grants

<i>American Society of Zoologists</i> , for reprinting and distributing symposium papers on undergraduate biology	\$25,000
<i>International Association for the Evaluation of Educational Achievement</i> , toward a report on the Second International Science Study	\$25,000
<i>North Carolina School of Science and Mathematics</i> , toward dissemination of a high school mathematics course for college-bound students	\$25,000
<i>Stanford University</i> , for tests of new procedures for evaluating science textbooks and to develop teacher training materials	\$25,000
<i>Stanford University</i> , for planning materials and training for teachers on the human biology core curriculum	\$25,000
<i>University of California, San Diego</i> , for a conference on the relationship between science and government in the United States	\$25,000
<i>Western New York Public Broadcasting Association</i> , for production and evaluation of teachers' guides for instructional television broadcasts	\$25,000
<i>Marine Biological Laboratory</i> , for a fellowship program for science writers	\$20,000
<i>Mathematical Association of America</i> , toward support of the American Mathematics Project	\$20,000



<b>American Association for the Advancement of Science</b>	<b>\$657,000</b>
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In 1985 the Corporation funded a new program of the American Association for the Advancement of Science (AAAS) designed to connect the scientific community with community-based and national organizations that are working to improve the education of minorities, women, and the disabled in science and math. This program is based in the AAAS's Office of Opportunities in Science, headed by Shirley M. Malcom. It provides information about model in-school and extracurricular programs that have proven effective in promoting equity and, further, offers direct assistance to groups seeking to adapt or adopt these model programs. Among the member organizations are the American Chemical Society, the National Association for the Advancement of Colored People, the Congress of National Black Churches, the National Council of La Raza, the League of Women Voters, Girls Clubs of America, Recording for the Blind, and the Association for the Deaf. This two-year grant is helping Malcom and her staff continue their efforts. Other funders include the College Board, the Ford Foundation, the National Science Foundation, J.N. Pew Jr. Charitable Trust, Apple Computer, and the National Aeronautics and Space Administration.

<b>Fundación Educativa Ana G. Méndez</b>	<b>\$400,000</b>
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The Fundación Educativa Ana G. Méndez administers three of the major private colleges of Puerto Rico: the Universidad del Turabo, the Colegio Universitario Metropolitano, and Puerto Rico Junior College. With the help of a Corporation grant, the fundación and the Department of Education of Puerto Rico have been working jointly since 1985 to motivate and prepare talented ninth- through twelfth-grade public school students to pursue and succeed in math- and science-based college careers. Their collaboration, known as Comprehensive Activities to Upgrade Science Academics (CAUSA), has resulted in a four-year science enrichment program at the three fundación-administered colleges. One hundred eighty public high school students out of a total of 2,300 applicants from 71 schools in the 21 school districts close to the three colleges were chosen to participate in a program of special courses, counseling, and field trips. This three-year grant is supporting CAUSA's efforts to reach more students, both by increasing enrollment to 240 students and by helping to organize similar collaborations between other universities and high schools throughout Puerto Rico. The science enrichment program is part of a larger plan on the part of the education department to improve teacher and counselor training and to develop new materials and curricula for Puerto Rican public schools.

<b>National Urban Coalition</b>	<b>\$350,000</b>
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According to the National Science Board, by 1995 the United States will face a shortage of college graduates trained for careers in scientific, technological, and mathematical fields. The shortage will be especially severe among blacks and His-

panics. In 1986 a Corporation grant helped the National Urban Coalition (NUC) initiate a nationwide program to mobilize black and Hispanic community-based and parents' organizations in support of improved math and science education for minority children. During its first two years the program, known as Equal Access to Science, Mathematics, and Technology, has become a major resource on issues of minority education, forging connections with a broad membership in community-based and parents' organizations and with school district representatives. This two-year grant is helping NUC continue its outreach program. Specifically it will identify, develop, refine, and disseminate models that can be used to engage minority students and their parents, schools, and communities in promoting improved science and math education. The project is codirected by Ramona H. Edelin, president, and DeAnna B. Beane, director of education.

**University of California, Berkeley**

**\$350,000**

Since 1970 the Mathematics, Engineering, Science Achievement (MESA) program, located at the Lawrence Hall of Science of the University of California, Berkeley, has promoted mathematics achievement among minority students. With Corporation support in 1984, MESA expanded its efforts by launching Junior MESA, aimed at promoting mathematics achievement among minority students in junior high and middle schools. Junior MESA emphasizes parental involvement and provides academic tutoring, independent study groups, counseling and career advice, field trips, role model presentations, and recognition awards to promising minority students in the seventh through ninth grades in 17 California school districts. This two-year grant is helping MESA expand its Junior MESA program. It is training school administrators, counselors, and teachers in MESA techniques and devising methods for replicating particularly effective activities developed at individual sites in other Junior MESA schools. Wilfred O. Easter directs the program.

**Science Museum of Connecticut**

**\$300,000**

The Connecticut Pre-Engineering Program (C-PEP) is a collaboration among Connecticut colleges, state and local governments, and private corporations. Its purpose is to increase the number of minority students enrolled in college preparatory courses in science and mathematics. It identifies students of promise at all grade levels and assists them through academic tutorials, field trips, special counseling, summer enrichment programs, scholarship incentive awards, and guidance in obtaining financial support for college. Originally established in the Hartford public schools, it has recently been introduced in Bridgeport and New Haven. With this three-year grant the Corporation joins such private corporations as United Technologies, Southern New England Telephone, and American Telephone & Telegraph in helping to support C-PEP's continuing expansion. The project is directed by Robert F. Content, director of the Science Museum of Connecticut. Edmund W. Gordon, head of the Institute for Social and Public Policy at Yale University, is leading a team of researchers in conducting a multiyear evaluation of the program.



The technical vocabulary of mathematics and science can be difficult to comprehend for minority students with limited language skills, causing many of them to fall away from the study of math and science and, in the long run, from careers in those fields. This two-year grant is supporting the Center for Applied Linguistics in its continuing efforts to design curricula and train teachers to integrate language instruction with instruction in science and math. It specifically supports a project aimed at students in the middle grades. To determine the needs of middle school minority students, the center conducted a national survey of educators. It has now compiled a language inventory in arithmetic, produced a videotape to illustrate its integrated approach to instruction, held regional teacher training workshops, and established a national clearinghouse for other pertinent materials. George A. Spanos, senior research associate, is project director. JoAnn Crandall, director of international education for the center, is serving as senior advisor.

Hispanics and blacks are underrepresented in scientific and mathematical fields, and yet no definitive study has been made of the early contributing factors. This two-year grant is supporting Sanford M. Dornbusch, director of the Stanford Center for the Study of Families, Children, and Youth, and P. Herbert Liederman, professor of psychology and behavioral sciences, in undertaking such a study. Their research focuses on conditions thought to affect the performance of minority members, including acculturation, language use, traditional gender expectations, and the demonstrated tendency among schools to assign black and Hispanic students to low-level math and science courses, even when those students have tested well. The Education Commission of the States is helping the project directors disseminate their findings. A public policy committee is being formed of legislators, state education officials, researchers, media experts, and foundation executives. This group will assist in organizing conferences, workshops, and seminars for educators, legislators, federal and state officials, students, and parents.

The Center for Women Policy Studies is using this one-year grant to establish a national program of Educational Equity Policy Studies (EEPS). Entitled "Building Bridges," its aim is to increase the participation of minority girls in math, science, and technology. Headed by Leslie R. Wolfe, executive director of the center, EEPS has established a national steering committee of experts in precollege and college education, which is developing a long-range agenda of outreach to minority girls and women. Reports of the committees will be disseminated to state and federal policymakers and to schools and universities. Workshops will be held at national conferences of organizations and associations concerned with education policy and civil and women's rights. In collaboration with the National Center for Policy Alternatives, a series of "Capitol Conferences" will also be convened for state

legislators. The program will eventually become an integral part of the Center for Women Policy Studies' overall program, serving as a national resource center for those committed to educational equity for minority girls and women.

Arizona State University

\$125,000

The Hispanic Research Center at Arizona State University recently initiated "Project 1000" with the aim of identifying, recruiting, and ultimately seeing graduate an additional 1,000 Hispanic graduate students from U.S. universities. This two-year grant, together with in-kind support from Arizona State, is helping staff at "Project 1000" build a network of colleges, community-based organizations, and professional associations to increase the access of promising Hispanics to higher education. Directed by Gary D. Keller, the project is placing special emphasis on mathematics, engineering, and the sciences. Its supporting network is advocating increased allotments of scholarship monies to Hispanics and designing a common financial aid form that will permit students to apply to a number of graduate schools simultaneously. Network members are also working with the Educational Testing Service to help Hispanic students improve their performance on the Graduate Record Examination. Fifty graduate schools, including those at Cornell, Columbia, and Princeton, have agreed to make special efforts to assist Hispanics who apply through "Project 1000." Keller and his staff will track the academic progress of participating students in an effort to gauge the project's effectiveness.

Institute for Educational Leadership

\$75,000

The declining youth population in this country, and the increasing percentage of children born "at risk," are important trends warranting public attention. Both the public and key policymakers must be made aware of the combined impact of these coming demographic changes if needed reforms in education and other areas are to be made to prevent the loss of adult talent. With this one-year grant, the Corporation joins the ARCO and EXXON foundations in funding the Institute for Educational Leadership's establishment of a Center for Demographic Policy, designed to help state and national leaders focus on these issues. Under the direction of Harold L. Hodgkinson, former director of the National Institute of Education, the center will convene a group of nationally prominent demographers to develop strategies for broadly transmitting the educational and economic implications of demographic change. It will also run a pilot conference for policymakers on the use of demographic data, and will publish a newsletter.

Discretionary Grants

<i>National Association for Equal Opportunity in Higher Education</i> , for participation by outstanding students in mathematics, science, and engineering in the 1988 White House Initiative on Historically Black Colleges and Universities Symposium	\$25,000
<i>Quality Education Project</i> , for completion of the resource manual of the Quality Education Project	\$25,000



<i>Council of Graduate Schools in the United States</i> , for a study of the under-representation of minorities in graduate schools	\$22,000
<i>Massachusetts Institute of Technology</i> , toward a summer research program in science for minority students	\$20,000
<i>University of Wisconsin-Milwaukee</i> , toward a model project to prepare minority middle school students for careers in science and mathematics	\$20,000
<i>Western Interstate Commission for Higher Education</i> , toward initiatives to improve educational opportunities for minorities	\$20,000
<i>National Council of Educational Opportunity Associations</i> , toward a conference on access and retention of low income, minority, and handicapped students	\$19,500
<i>American Association for Higher Education</i> , for targeted distribution of a special issue of <i>Change Magazine</i> focused on Hispanics in higher education	\$7,500

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## *Toward Healthy Child Development: The Prevention of Damage to Children*

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Although the majority of American children grow up to be strong and capable adults, substantial numbers of children and adolescents encounter serious problems along the way that affect their survival or leave their entire lives warped or unfulfilled. The foundation's program, *Toward Healthy Child Development: The Prevention of Damage to Children*, focuses on four of the major kinds of serious harm that befall children and young adolescents: school failure, school-age pregnancy, childhood injury, and substance abuse. In two of these areas—school failure and school-age pregnancy—the Corporation funds unsolicited proposals. In the other two—childhood injury and substance abuse—it only initiates projects.

The foundation's interest in the prevention of school failure encompasses a variety of approaches, including efforts to expand preschool education and family support programs in low-income communities; to improve achievement in junior high schools and reduce school dropout; and to monitor and strengthen policies and programs that upgrade the education of minority students.

The childbearing rate of American teenagers is among the highest in the industrialized world. Given the Corporation's limited resources and the fact that there are already a number of programs to prevent or delay repeat pregnancies among school-age girls, the Corporation is concentrating on efforts to prevent the first pregnancy among young adolescents. It funds the development and testing of a variety of intervention programs designed to help girls and boys develop responsible sexual attitudes and behavior and a clearer sense of alternative futures to early parenthood. Projects supported are variously exploring the roles of peers, parents, schools, community-based organizations, and the media.

Finally, in recognition of the range of serious problems encountered by many adolescents from all social groups, the Corporation has created the Carnegie Council on Adolescent Development. Its purpose is to generate public and private interest in measures that prevent seriously damaging problems in adolescence and to promote healthier adolescent development. The council has a three- to five-year life, with a membership of 27 leaders from the fields of science, law, business, government, the media, health, religion, education, and youth-serving agencies. Thus far it has established a Task Force on Education of Young Adolescents, begun to work with representatives of the media on adolescent problems, and initiated an investigation of promising preventive interventions and a synthesis of basic research on adolescence. The council, a project of the Corporation, has offices in Washington, D.C.

Congress of National Black Churches

\$758,900

Over the past five years the Corporation has made several grants in support of a project planned and implemented by the Congress of National Black Churches (CNBC) to promote the healthy development of black children. CNBC, which was established in 1980 to foster cooperation among the seven historically black religious denominations, has used these funds to initiate Project SPIRIT, an interdenominational effort that serves disadvantaged black children and their parents. Five inner-city churches in three pilot cities—Oakland, Atlanta, and Indianapolis—are offering after-school tutorials and weekend math and science enrichment programs for children ages six to twelve, evening parent education, and pastoral counseling for ministers. Children are referred to the program by neighborhood schools or ministers, generally because they are experiencing academic, behavioral, or emotional problems. An evaluation by Harriet P. McAdoo, a Howard University authority on the black family, indicates that, during its first two years, Project SPIRIT has raised the academic achievement levels of most participating children. This 18-month grant is enabling CNBC to continue Project SPIRIT, to refine and document its methods, and to complete a more systematic evaluation of the project's effects. CNBC will also establish a technical resources and training center to help churches outside the three pilot cities and other family support programs adopt Project SPIRIT's methods. Vanella A. Crawford is project director.

Far West Laboratory for Educational Research and Development

\$250,000

At a time when over 50 percent of mothers of infants and toddlers are in the workforce, high-quality out-of-home care is scarce. The most prevalent form of child care for children ages three and under is family day care, provided by individuals in their homes. Family day care is also the least regulated type of care. Recognizing the need for widespread training of early child care providers, the Far West Laboratory for Educational Research and Development is producing a comprehensive training program for infant and toddler caregivers. The material is organized into modules consisting of videotapes, written summaries of the videos, and curriculum guides that deal with important aspects of early development, caregiving practices, and child health and safety. This one-year grant is supporting the creation of two new modules: one on culturally sensitive caregiving for children of different ethnic backgrounds and one on early cognitive development. The Far West project, under the direction of J. Ronald Lally, is working with the U.S. Department of Education to design a plan for national distribution that will make the materials available at minimal cost to training programs and caregivers.

Bank Street College of Education

\$100,000

Public schools have recently increased their involvement in early childhood programs for disadvantaged children. This one-year grant is helping Bank Street



College of Education disseminate its recently completed study of such school-based programs, which was conducted under a previous Corporation grant. The study, codirected by Anne Mitchell, director of the Bank Street Child Care Service, and Michelle Seligson and Fern Marx of the Wellesley College Center for Research on Women, documents the variety of early childhood programs that currently exist in public schools. It further assesses the quality of those programs and their impact on families and schools and analyzes the relationships between state policy and practices at the local level. Three technical reports, one for each component of the study, as well as a book, *Between Promise and Practice: Early Childhood Programs and Public Schools*, have been published thus far. The findings contained in these publications will be presented to a number of national organizations including the Council of Chief State School Officers, the National Conference of State Legislatures, and the Education Commission of the States. The project is also funded by the Ford Foundation.

**Harvard University**

**\$100,000**

In 1986 the Harvard Family Research Project, directed by Heather B. Weiss, received grants from the Corporation and the Ford Foundation to study the wide variety of family support programs intended to provide parents with information, emotional support, and practical help in caring for their children. These programs have developed in churches, hospitals, self-help organizations, social service agencies, schools, daycare centers, and other settings. Under the earlier grant, Weiss and her colleagues produced a book evaluating family support programs. This 19-month grant is enabling Weiss and her staff to study school-based programs in greater depth and to produce a resource guide that will describe and analyze approximately 60 programs and list national and regional sources for technical assistance, key individuals and spokespersons in the field, and relevant publications. The guide is being written for educators, community leaders, policymakers, and practitioners interested in initiating similar programs. A second book analyzing the implementation of family support programs in four states — Minnesota, Missouri, Maryland, and Connecticut—is also forthcoming.

**National League of Cities Institute**

**\$85,000**

The National League of Cities, the largest and most representative organization serving the nation's city governments, recently released a book, *Children, Families, and Cities*, which profiles innovative programs that benefit children in communities across the country. With this one-year grant, the league will use the findings of the book to help cities meet the needs of children and parents. The league is collaborating with national child advocacy organizations to establish a system of linkages between city governments and experts on children and families. The league is also undertaking a broad survey of city governments, together with intensive investigations of a small number of sites, to determine how these governments can best aid children and families. Different methods of providing and



brokering technical assistance are being tested in pilot cities. Based on the results of this project, the league will build a long-term program of support to urban children and families and to municipal governments in meeting their needs.

University of Rochester

\$82,000

A program of home visits by nurses to low-income mothers during and after pregnancy, carried out by David L. Olds and a team of nurses from the University of Rochester, has improved infant health and helped mothers avoid subsequent unwanted pregnancies. With this three-year grant, Olds and his staff are replicating their program on a larger scale among low-income, urban, predominantly black women. The pilot program is being conducted among 1,468 adolescent first-time mothers in Memphis, Tennessee. If successful, the program could have a significant impact on pre- and postnatal care for urban minority women, especially teenagers. The mothers in the pilot program have been divided into two groups. One will receive transportation to existing prenatal clinics; the second will receive intensive nurse home-visitation services during pregnancy, in addition to the transportation being offered the first group. A subset of the second group will also receive continuing home visits until the children's second birthdays. Collection of data on the home visits will be carried out by two independent organizations, and the project will be reviewed periodically by national and local advisory committees.

Committee for Economic Development

\$50,000

In 1987, with support from the Corporation and several other foundations, the Committee for Economic Development (CED) released *Children in Need: Investment Strategies for the Educationally Disadvantaged*. The document, prepared by a committee of business and education leaders chaired by Owen B. Butler, retired chairman of Procter and Gamble Company, is the first report by a major business organization to argue that disadvantaged children's readiness for school depends on early and sustained educational intervention beginning in infancy. This two-year grant is helping Butler and the CED staff disseminate the report. Butler and senior CED staff members are meeting key business, government, education, and children's interest groups to help them develop new initiatives based on the recommendations of the report. The grant is also supporting a CED-sponsored assessment of the impact of business on education, directed by Michael P. Timpane, president of Teachers College, Columbia University.

Discretionary Grants

Bank Street College of Education, toward dissemination of a study of public school involvement in programs for young children	\$25,000
Child Care Action Campaign, toward research and writing for a conference on child care	\$25,000

<i>Yale University</i> , for planning a project to improve the quality and supply of family day care	\$25,000
<i>Avance-San Antonio</i> , for strengthening the Avance program	\$14,000
<i>University of Houston</i> , toward a study of the long-term effects of parent education through Parent Child Development Centers	\$14,000
<i>High/Scope Educational Research Foundation</i> , toward support of the Consultative Group on Early Childhood Care and Education	\$5,000

*School failure*

**Yale University** **\$487,000**

Over the past several years a team at the Yale Child Study Center headed by James P. Comer, professor of psychiatry at the Yale Medical School, has developed a model program in low-income, predominantly minority New Haven elementary schools. The program addresses issues ranging from the academic or emotional problems of individual students to changes needed in the schools' curricula, social climate, and relations with parents and the community at large. It has improved student attendance and raised scores on standardized language, reading, and math tests. Two years ago a Corporation grant helped Comer and his team carry the elementary school program over to two pilot middle schools in New Haven. Both schools have now developed "comprehensive school plans" with specific objectives and have begun initial implementation. This second grant is supporting the project through the next three years, during which it will endeavor to improve students' basic skills and behavior and to work with teachers and parents. The project is being documented by ethnographer Norris M. Haynes, whose report may help other school systems learn and adopt Yale's model. Muriel Hamilton-Lee, the associate research director of the School Development Program at the center, is evaluating the project's effect on students' intellectual, emotional, and behavioral development at the two test schools.

**Puerto Rican Legal Defense and Education Fund** **\$450,000**

The Puerto Rican Legal Defense and Education Fund (PRLDEF) was established in 1972 to protect the civil rights of Puerto Ricans living in the United States and to increase the number of Puerto Rican attorneys in this country. Since then, with the help of five Corporation grants, it has emerged as an important advocate for language-minority students' rights, promoting quality bilingual education, special education, desegregation, and dropout prevention efforts and battling overcrowding in schools that serve Puerto Rican students. It has initiated a number of class-action suits compelling school districts to make bilingual instruction available to their students or to continue or implement court-ordered mandates for educational equity. It collaborates with community-based organizations in helping to influence

policy at the legislative and executive levels of government. It also endeavors to educate policymakers about the likely impact of proposed legislation upon the Puerto Rican and Hispanic communities. With this three-year grant the Corporation joins the Ford and Rockefeller foundations in their continuing support of PRLDEF's education and advocacy activities. Ruben Franco is president and general counsel.

Public Education Association

\$327,000

In 1987 the New York State Education Department identified 54 of New York City's high schools as falling below minimum standards in reading and mathematics. Dropout rates ranged as high as 50 percent. This two-year grant builds on previous Corporation support in helping the Public Education Association, a New York citizens' group, collaborate with Bank Street College of Education in monitoring and evaluating three existing efforts at reform in city public high schools: the reorganization of all ninth-grade classes into subsections based on different academic themes; a comprehensive school improvement program for schools that fail to meet the state's minimum standards; and an intensive dropout-prevention program. Through surveys of school staff, case studies of a small number of schools, and interviews with samples of students, the project staff is assessing the potential of these structural reforms for improving the education of low-income students. A report of the project's findings will be disseminated to the state education department, the state legislature, and budget and policymaking officials of the city.

New York University

\$300,000

Dropping out of school is disproportionately an urban problem. Recognizing that fact, Ford Foundation staff in 1986 initiated a project designed to bring technical assistance agencies together with schools and community-based organizations in 21 cities to develop and implement plans to reduce their dropout rates. In 1987 the Corporation supported Terry A. Clark, a senior research scientist in the public administration department at New York University, and a team of minority-group evaluators in documenting the activities of these collaboratives. This winter the Ford Foundation launched phase two of its project — a series of 21-month grants to the cities to support further implementation and evaluation of their dropout-prevention strategies. This two-year Corporation grant is helping Clark and her team continue their documentation efforts. They are describing at least five of the collaboratives in depth and the remaining collaboratives more generally. Their efforts will ultimately result in a series of monographs on the 21-city project. William E. Bickel, senior scientist at the Learning Development and Research Center at the University of Pittsburgh, is senior consultant to the team.

California State Department of Education

\$250,000

In May 1987 the California State Department of Education released the report of its statewide task force on education in middle schools. Entitled *Caught in the Middle*,



the report calls for changes in middle school curricula, instructional practices, academic counseling, dropout prevention programs, school organization, adolescent health, testing and assessment, and professional preparation. To help California schools implement some of these recommendations, the education department has launched a three-year reform effort involving ten regional networks of ten schools each. Every network includes a "foundation school," selected for its academic performance and for policies that put it on the cutting edge of middle school practices. The foundation schools are collaborating with local college faculty to help the other schools in the regional networks achieve their reform objectives; they will ultimately act as liaisons between the network schools and health and other community agencies concerned with the well-being of young adolescents. The overall project involves 110 schools and 100,000 students of diverse racial and economic backgrounds. With this 19-month grant the Corporation joins individual California school districts, the State education department, and various universities in supporting the project through its initial phases.

**National Coalition of Advocates for Students**

**\$250,000**

For the past six years the Corporation has provided basic support to the National Coalition of Advocates for Students, whose members are child advocacy organizations focused primarily on educational issues. During this period the coalition, which includes the National Council of La Raza, the National Black Child Development Institute, and the Children's Defense Fund, became increasingly concerned that the school reform movement was ignoring the needs of disadvantaged children. It held hearings in ten cities and published a report, *Barriers to Excellence: Our Children at Risk*. Shorter analyses of specific educational problems and potential solutions and of education issues for writers in the field also emerged. Most recently the coalition conducted an investigation into the status of immigrant children in United States schools. This two-year grant is helping the coalition continue its networking and technical assistance activities. It is also funding the development and dissemination of the coalition's model of "the good common elementary school," designed to engage low-income students without unnecessarily segregating them or diverting them to special "low-income" classes.

**Multicultural Education Training and Advocacy Project**

**\$200,000**

There are approximately three million school-age children of limited English proficiency in the United States, and their numbers are expected to grow. Because school districts often do not meet the special needs of language-minority students, litigation has proved to be a significant factor in securing the quality of education guaranteed by law. The staff of the Multicultural Education Training and Advocacy Project (META), led by attorneys Peter D. Roos and Roger L. Rice, has played a key role in litigation in this area during the past six years, with the help of two Corporation grants. This grant, extending over two years, is supporting META at a time of particular antipathy toward special programs for language-minority stu-



dents. META staff will attempt to increase knowledge about these issues by conducting up to eight training sessions in various cities around the country for lawyers, parents, educators, citizens' groups, and higher education officials. META will also provide technical legal assistance to local advocacy efforts and continue its role as cocounsel in major cases still pending in California and Texas.

<b>Task Force on Children Out of School</b>	<b>\$200,000</b>
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The Massachusetts Advocacy Center (formally incorporated as the Task Force on Children Out of School) received prior Corporation support for identifying policies that tended to exclude marginal students in Boston middle schools. This 30-month grant is helping the center monitor the implementation of a statewide incentive grant program recently enacted by the Massachusetts legislature. The program provides funds for remediation projects in grades one through nine and dropout prevention projects for grades seven through twelve. The center's staff is focusing on the middle grades, six through nine, in assessing both the remediation and dropout prevention efforts. It is first evaluating the basic characteristics of the grant program. When that evaluation is complete, it will conduct a field analysis of four cities that have received incentive grants for programs for the middle grades. The center's assessment will be used to improve administration of the grant program and the individual districts' use of funds, as needed. A report assessing statewide implementation efforts will result, as well as four community-specific reports assessing implementation in the schools. A final document describing all aspects of the program that relate to middle schools will be made available to educators and policymakers around the country.

<b>University of North Carolina at Chapel Hill</b>	<b>\$200,000</b>
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A 1985 Corporation grant supported the Center for Early Adolescence at the University of North Carolina in its analysis of successful literacy programs for young adolescents in schools and in after-school and summer programs throughout the United States. Following a national search, center researchers made site visits to 32 programs and produced detailed case studies of a selected group of those programs. The resulting book, *Adolescent Literacy: What Works and Why*, published early in 1988, argues that successful adolescent literacy programs are complex but replicable and that most of the existing programs could be improved. This two-year grant is helping project director Judy Davidson extend the initial research. She is developing a practical handbook designed to help schools or school districts assess the quality of their literacy efforts and initiate change. The handbook will be based on the center's existing Middle Grades Assessment Program (MGAP), a general self-assessment and improvement tool for middle schools. The Ford Foundation recently committed funds toward a Middle Grades Assessment of Mathematics, and this literacy handbook will be a parallel effort, known as the Middle Grades Assessment of Literacy. To be field tested in several public schools prior to publication, it will address both specific changes in the reading and writing curriculum and literacy needs across the entire school curriculum.

## Johns Hopkins University

\$122,000

David W. Hornbeck has been state superintendent of schools in Maryland for the past 12 years. He also chairs the Carnegie Council on Adolescent Development's Task Force on Education of Young Adolescents. This one-year grant is partially funding Hornbeck's appointment as visiting professor of education and public policy at Johns Hopkins University, where he is doing extensive research and writing on children at risk of school failure. He is producing an updated and expanded prescription for the basic qualities of education that must be guaranteed to all disadvantaged children. He is also examining ways in which civic and moral values can be effectively taught. Finally, he is suggesting ways in which education, counseling, health, and other services can be reorganized to play a coordinated and connected role in the overall development of disadvantaged children. Each area of research will result in an essay. Hornbeck will combine some or all of the information into a book on education for children at risk.

## Child Care, Inc.

\$110,000

Two years ago the Corporation made a grant to Child Care, Inc., a New York-based resource and referral organization, to develop model family day care networks in several low-income neighborhoods in New York City. The goal of the networks is to increase the number of providers and to enhance the quality of care. Since January 1986, 146 new caregivers have been recruited into six networks and have participated in ongoing child care training. With support from this one-year grant, Child Care, Inc. is offering further training for the network coordinators in parent education, infant care, and the retention of providers. Health training focusing on infant and child safety and emergency management and on child physical and developmental assessments is being offered in collaboration with the American Red Cross and the Visiting Nurse Association of Brooklyn. The effects of the training program will be reported in a *Guide to How to Start a Family Day Care Network*, to be distributed among educators, practitioners, and potential sponsoring agencies throughout the country.

## Adolescent pregnancy

## Columbia University

\$440,000

With a previous Corporation grant, the Center for Population and Family Health of Columbia University established demonstration clinics designed to reduce both dropout and adolescent pregnancy rates in a middle school and a junior high school in New York City's Washington Heights area, where 80 percent of the students are Hispanic and 15 percent are black. During its first 15 months the center concentrated on developing, evaluating, and refining the health-centered aspect of its program, which provided combined health and social support services to approximately 2,000 students in the two schools. This second grant is helping the center implement and evaluate its other half, a targeted academic remediation/dropout



prevention component. Over the next two years, in collaboration with Public/Private Ventures, which designs educational intervention programs, center staff will follow a second group of approximately 2,000 students from seventh grade into their high school years. Their academic records, behavior patterns, and pregnancy rates will be compared with those of students who receive only the medical and social support services and with students who receive no services at all. Lorraine Tiezzi is directing the project, which also receives funds from the Robert Wood Johnson, William and Flora Hewlett, Henry J. Kaiser Family, and General Service foundations and from the Pew Memorial Trust.

National Urban League

\$415,000

In 1985 the National Urban League (NUL), the oldest black social service agency in the country, created a media program designed to motivate young males to take the initiative in preventing pregnancies and to assume both emotional and financial support for children already fathered. At that time there were few programs directed at fostering male sexual responsibility. Now there are approximately 100, due in large part to the NUL project. A 1987 Corporation grant helped NUL carry out the media program. Funds also supported a national conference on male responsibility programs and a book-length survey of existing programs serving males, *Adolescent Male Responsibility: A Program Development Guide*. This two-year grant is providing continued support to NUL's media program, which will include speaking engagements by John E. Jacob, president of NUL, and by project director Edward Pitt. NUL is serving as a clearinghouse for information on male sexual responsibility. It produces a newsletter updating research results and program management and provides technical assistance to new and existing programs. Plans are to stage two workshops per year for program administrators, staff, and volunteers, and to hold two more national conferences. A system for assessing the quality of male responsibility programs is being developed.

Alan Guttmacher Institute

\$303,200

The threat of AIDS now renders responsible sexual behavior a matter of life and death for this nation's teenagers. While 80 percent of metropolitan school districts report offering some form of sex education, the courses are not required to adhere to any professional standards. The Alan Guttmacher Institute, which conducts research and policy analysis on fertility and population issues, is using this 18-month grant to undertake two national surveys of sex education. The aim is to gather detailed and systematic information for the development of meaningful state guidelines and standards and to assess the resources and administrative mechanisms needed to sustain effective educational programs. The first survey, of 9,800 secondary school teachers who teach sex education, will collect information on the present state of U.S. sex education and the barriers to effective instruction, and will assess the impact of AIDS on sex education. The second, companion, survey will assess the role of the city and state in sex education. The final report

will be condensed into a booklet to be distributed to education policymakers, teachers, school boards, and governments.

**Center for Population Options**

**\$200,000**

School-based clinics are an increasingly popular method for providing comprehensive health care to adolescents who are most at risk of pregnancy, sexually transmitted diseases, and drug and alcohol abuse. Schools that have established such clinics typically report usage by between 70 and 90 percent of their students and are reporting declines in dropout and pregnancy rates. In 1985 the Center for Population Options established the Support Center for School-Based Clinics to provide technical and professional services for developing facilities. This two-year grant renews a previous Corporation grant in support of the center, which is directed by health administrator Sharon R. Lovick. During the next two years Lovick and her staff will monitor government health policies; testify on request at federal and state hearings on proposed policy initiatives; offer regional in-depth training to schools interested in starting clinics; and update information through *Clinic News*, the center's newsletter. They are also collaborating with the National Center for Youth Law's Adolescent Health Care Project to clarify legal and ethical issues related to consent and confidentiality and establishing an outreach program to black organizations emphasizing the value of these clinics.

**Girls Clubs of America**

**\$200,000**

The Girls Clubs of America (GCA) is a national membership organization with 220 affiliates in 115 cities across the United States. A 1985 Corporation grant aided GCA in developing and implementing four intervention programs aimed at preventing first pregnancies in four pilot cities. Workshops on parent-child communication and an assertiveness training course were offered to girls 12 to 14 years of age. For girls ages 15 to 17, GCA developed one course focusing on education and career goals and another linking GCA educational services with local health care facilities. Data collected from 1,240 girls in experimental and control sites indicate that the four models have in fact been effective. With this two-year grant the Corporation joins the William and Flora Hewlett Foundation, the Henry J. Kaiser Family Foundation, and the Dewitt Wallace-Reader's Digest Fund in supporting the next phase of GCA's pregnancy prevention program. GCA is disseminating curricular materials and offering training workshops on implementation to all Girls Club sites. It will also collect data on the program's effectiveness in 1988-89 and continue analyzing data from 1985 to 1987. Its findings will be published in professional journals.

**Council of State Governments**

**\$154,000**

During the past two years the Southern Governors' Association (SGA), a unit of the Council of State Governments, has promoted awareness about maternal health



problems and infant mortality in the South, where a disproportionate number of adolescent pregnancies occur. A previous Corporation grant helped the SGA gather data on pregnancy rates among girls from the southern states, the public costs of adolescent childbearing, and current state and local prevention initiatives. This one-year grant is supporting the SGA as it disseminates its report on adolescent pregnancy throughout the South, sets up a Southern Strategic Planning Group to develop and publish a region-by-region plan to address the issue, and assists states in increasing their data-gathering capacity on adolescent pregnancy and its relationship to school dropout rates.

Discretionary Grants

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*Jeffrey Koshel, Madeleine Kimmich, Therese Van Houten*, for updating a 1985 report on state efforts to reduce problems of teen pregnancy and parenting \$24,700

*Education, Training, and Research Associates*, to publish and disseminate a review of programs and services to foster responsible sexual behavior on the part of adolescent boys \$10,300

*Substance abuse*

Harvard University \$600,000

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A 1984 Corporation grant helped establish the Institute for the Study of Smoking Behavior and Policy at the John F. Kennedy School of Government. Its areas of research include adolescent smoking, smoking cessation interventions in medical clinics and other health care facilities, and nonsmoking policies in public places and the workplace. Thomas C. Schelling, professor of political economy at the Kennedy School and director of the Smoking Institute, and John M. Pinney, executive director of the institute, are using this two-year grant to expand the institute's work to the broader area of substance abuse by young people. Schelling, Pinney, and their staff, with members of the Carnegie Council on Adolescent Development, are conducting a systematic evaluation and comparison of the harms associated with different forms of adolescent substance abuse, including various kinds of illegal drugs, alcohol, and tobacco. The comprehensive review will consider physical, psychological, economic, and social effects and will further break these factors down according to age, gender, geography, and ethnicity as well as socioeconomic, family, school, work, and criminal status. From this review, the institute will clarify the risks involved in adolescent substance abuse, identify the groups most at risk, and set new priorities for prevention.

Discretionary Grants

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*Environmental Defense Fund*, toward a study of lead exposure in U.S. children and women and the dissemination of information to the public \$25,000

**WGBH Educational Foundation**

**\$400,000**

*Degrassi Junior High*, a weekly public television program for 10- to 14-year-olds, is set in an unnamed North American city with a diverse ethnic population. It presents ordinary teenage characters faced with problems of self-image, peer pressure, alcohol, drugs, sexuality, and family relationships. The series, which began in September 1987 on public television, received an initial Corporation grant toward promotion and research. Outreach materials aimed at educators and youth organizations accompany the broadcasts. This 15-month grant is helping Linda Schuyler, a Canadian producer, and Kate Taylor, an American producer, collaborate on a second series of *Degrassi* episodes for broadcast in 1988-89. The second series continues to explore fundamental adolescent issues, incorporating new themes, including money and values, first jobs, and parents remarrying. For the second series, the Public Broadcasting Service, which distributes the series, has agreed to experiment with time slots to increase the audience and to test the show's potential as an ongoing series.

**Carnegie Mellon University**

**\$309,000**

Adolescent morbidity statistics indicate that large numbers of adolescents decide to engage in high-risk behaviors, yet no formal study has been made of decision-making processes in adolescents. This two-year grant is enabling Baruch Fischhoff, a psychologist at Carnegie Mellon University, and his collaborator, developmental psychologist Lita Furby, to conduct a detailed study of adolescent decision making. Fischhoff and Furby are reviewing existing intervention programs that aim to affect decision making among adolescents and are collecting the results of current research in the field. They intend to conduct empirical research into adolescent decision making on a variety of issues and in varied economic and cultural contexts. Fischhoff and Furby's work is expected to provide new information about improving adolescent decision-making processes, for the continuing efforts of the Carnegie Council on Adolescent Development and of other organizations.

**For a study of adolescent health to be conducted in cooperation  
with the Office of Technology Assessment, U.S. Congress**

**\$275,000\***

With this 18-month grant, the federal Office of Technology Assessment (OTA) and the Carnegie Council on Adolescent Development are jointly conducting a study of the present health status of adolescents in the United States and identifying both the factors that put them at risk and that most effectively offer protection. The needs of rural youth and of racial and ethnic minorities are receiving particular attention. The study stresses existing health services for adolescents, reporting on their availability, effectiveness, and accessibility, including the financing, coordi-

*\*Administered by officers of the Corporation.*

nation, and legal aspects of access. At a later stage, the OTA will convene a series of workshops with experts in various relevant fields to concentrate on such subjects as alternative methods of delivering health care, special problems of low-income minority youth, and the cost of health education and health promotion programs. The final report, which will be delivered to Congress, will address the health status of adolescents, the effectiveness of the nation's health services for youth, and gaps in current data and research.

Stanford University

\$219,000

This 14-month grant is funding a volume on healthy adolescent development. It will address two broad areas: developmental processes (pubertal and cognitive development, social relationships, self, identity, and sex roles, among others); and contexts and outcomes (peer cultures, schooling, work, ethnicity, health, social competence, and deviance). The roles of religion and the media in adolescents' lives will be included. The chapters will be contributed by scholars in the field of adolescent health, who will closely consider the effects of race, ethnicity, and poverty. A concluding section will integrate the main lines of evidence from different approaches. The project is led by Glen R. Elliott, a child psychiatrist and neuroscientist, and S. Shirley Feldman, a developmental psychologist who has studied the effects of the family on early adolescent development. The volume is intended for a multidisciplinary professional audience. A companion volume will be written for nonpractitioners.

Joy G. Dryfoos

\$60,000

Joy G. Dryfoos, former director of research for the Alan Guttmacher Institute, has written extensively on adolescent development. A 1985 Corporation grant supported her exploration of the interrelationships among adolescent problems, which led to the report, *Adolescents at Risk: One in Four in Jeopardy*, and a draft of a second report on successful and unsuccessful elements in prevention programs. With this 19-month grant, Dryfoos is adding new data to both reports and incorporating all her research into a book to be published by Oxford University Press. She is also conducting new site visits to buttress her report on prevention programs and examining federal and state policies on youth-related issues.

University of Michigan

\$48,000

This one-year grant is supporting an in-depth study of social support systems that promote health and education for adolescents. The study is led by Richard H. Price, professor of psychology at the University of Michigan and research scientist at the Institute for Social Research. He is collaborating with a working group of specialists from the Carnegie Council on Adolescent Development, which is focusing on the teaching of "life skills" and decision making. The life skills group is chaired by Beatrix A. Hamburg, director of the Division of Child and Adolescent



Psychiatry and professor of psychiatry and pediatrics at Mt. Sinai School of Medicine. Together, Price and the life skills group hope to produce a definitive study of the effectiveness and potentially wider applications of a range of interventions aimed at promoting good outcomes for adolescents. The results of their research will be published by the council's Preventive Interventions Steering Committee.

**Discretionary Grants**

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<i>Graduate School and University Center of the City University of New York,</i> for a survey of community service programs for young adolescents	\$25,000
<i>Harvard University,</i> for a catalog of programs to prevent problems of adolescence and a survey of training programs	\$25,000
<i>Mount Sinai School of Medicine,</i> for staff support to the chair of the working group on Enhancement of Life Skills and Decision Making of the Carnegie Council on Adolescent Development	\$25,000
For dissemination of the report, <i>Within Our Reach: Breaking the Cycle of Disadvantage</i> , by Lisbeth B. Schorr with Daniel Schorr	\$5,000*

Other

**Children's Defense Fund** \$1,250,000

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Since its founding in 1972, the Children's Defense Fund (CDF) has become a leading national child advocacy organization. Under the direction of Marian Wright Edelman, CDF pursues improved legislative and administrative policies concerning the welfare of American children and works with social agencies and other institutions that address that subject. It concentrates in five major areas: health, education, child care, child welfare, and adolescent pregnancy. Prominent among its current activities is a national public education program about children's needs, encompassing a media campaign and book, *What Children Need*, about uninsuredness among poor children. CDF is also providing technical assistance to local groups and state officials to ensure that poor families receive the health benefits due them and is leading the Alliance for Better Child Care, a coalition of child care and welfare groups, labor unions, professional associations, and volunteer organizations promoting passage of a comprehensive child care bill by Congress. CDF is producing a multi-year agenda for improved implementation of the Adoption Assistance and Child Welfare Act of 1980 and is updating its own 1977 publication, *Children Without Homes*. This three-year grant is designated mainly for general support, with the balance contributing to CDF's fund for institutional development.

*\*Administered by officers of the Corporation.*

The Media Resource Service (MRS) of the Scientists’ Institute for Public Information is a free referral service linking journalists with scientists. Started in the wake of the Three Mile Island accident, when the institute was besieged by calls from reporters, MRS now refers members of the media to experts in a wide range of fields including medicine, nuclear weaponry, energy, and the life sciences. A 1986 Corporation grant enabled MRS to add child health and development to its list of referral topics. Under the direction of Deborah Walter, the Child Health and Development Program is guided by an interdisciplinary advisory committee. During 1987 it handled over 300 requests for information on child-related issues. Under the program nine media briefings were conducted for more than 1,500 journalists on such subjects as children and prejudice and AIDS education. This grant is supporting the program for another two years, enabling it to consolidate its data bank of experts and hold a second series of six to eight media briefings on children and welfare reform, adolescent suicide, and substance abuse, among other subjects.

Children’s Express Foundation

\$225,000

“Children’s Express” is a weekly column devoted primarily to issues of interest to children. Carried by about 40 newspapers across the country, it is written by children ages 10 to 13, who work with assistant editors who are slightly older. In conjunction with South Carolina Educational Television, the Children’s Express Foundation has also developed a weekly televised news magazine dealing with both national and youth issues as seen from the viewpoint of children and adolescents. The series, funded by the Public Broadcasting System and produced by Harry Moses, former producer of *60 Minutes* on CBS, is being shown during prime time on public television stations. The hope is that the series will inspire other children to research and write stories about their own communities. This three-year grant is helping the foundation stimulate the development of children’s press clubs by newspapers and school systems across the country. Foundation staff members are publicizing the press clubs through articles in newspapers, parent and educational magazines, and presentations at conferences of editors and educators. They are creating special instructional materials on reporting for children and teenagers who wish to start a press club, together with material on the subject for teachers. Training and technical assistance are available in some locations.

Harvard University

\$217,500

While poverty among the nation’s elderly has decreased during the past 20 years, it has grown among children. This grant is supporting an 18-month series of seminars at Harvard University on child and family poverty. The seminars, which feature experts from a wide range of fields, concentrate on four central areas: the underlying causes of unemployment; various kinds of nonwelfare child support; services such as preschool education and preventive health care for poor children; and supportive programs for indigent families. In addition to the seminars, two

executive sessions are being held to bring participants together with congressional staff, welfare commissioners, and directors of nonprofit service organizations. Reports of the seminars and executive sessions will be incorporated into a book. Mary Jo Bane, professor of public policy and director of the Center for Health and Human Resources Policy at the John F. Kennedy School of Government, is project director. She is being assisted by economist David T. Ellwood, and Paul A. Jar-gowsky, former staff director of the New York State Task Force on Poverty and Welfare. The seminars are chaired by Derek Bok, president of Harvard.

**Discretionary Grants**

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<i>Morehouse School of Medicine</i> , toward a resource center for community-based health promotion projects in the southern United States	\$25,000
<i>Urban Institute</i> , for a meeting on strategies for financing children's programs	\$25,000
<i>Action for Children's Television</i> , toward projects to improve children's television	\$20,000
<i>National Academy of Sciences</i> , toward dissemination of a report by the Institute of Medicine on outreach for prenatal care	\$10,000



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# *Strengthening Human Resources in Developing Countries*

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The priorities of the program, Strengthening Human Resources in Developing Countries, are based on a view of development as a process of expanding indigenous human capacity. The current program focuses on selected countries in Africa that are now or were formerly part of the British overseas Commonwealth, on nations of the Caribbean, and on Mexico.

A major objective is to encourage the application of science and technology for development through the support of projects to strengthen indigenous capabilities and by encouraging cooperation among policymakers and scientists in developing and developed countries. The program takes a multidisciplinary approach to the analysis of development issues, drawing on the knowledge, skills, and resources of the behavioral, biological, medical, and social sciences as well as the technical and policymaking communities in developing and developed countries.

To accomplish its objectives, the program encourages genuine partnerships between developed and developing countries, promotes the building of networks, and stimulates the translation of research results into policy.

A specific area of emphasis is on maternal and child health care, with an initial focus on reducing levels of maternal mortality and morbidity. In addition, the program supports efforts to communicate the lessons learned from development experience to American audiences — policymakers and scientists as well as the general public. Grants are aimed at strengthening the capacity of private voluntary organizations active in developing countries to enhance U.S. public understanding of those countries and of the long-term development problems they face. Other grants support journalism projects and radio and television programming for the same purpose. A portion of the funds for public education in the future will be used to examine and foster improved science and health reporting in sub-Saharan Africa, the Caribbean, and Mexico.

A special subprogram of activities focusing on South Africa stresses projects that attempt to enhance the legal, educational, and health status of black South Africans. The Corporation is also providing continued support for disseminating the results of reports from the Second Carnegie Inquiry into Poverty and Development in Southern Africa.

**American Association for the Advancement of Science** **\$699,700**

The growth of scientific research institutions in sub-Saharan Africa has been hindered by the isolation of individual African nations from the larger scientific community in Africa and abroad, and by lack of funds. This three-year grant is supporting the American Association for the Advancement of Science (AAAS) in a program designed to link U.S. researchers and scientific societies with their African counterparts. The program has three components. First, the AAAS is expanding a pilot program to distribute scientific journals among African research institutions, many of which cannot afford to buy subscriptions. Second, the AAAS is developing a network of partnerships between American and sub-Saharan African scientific and engineering societies, led by Thomas R. Odhiambo, president of the new African Academy of Sciences (AAS), and by Walter E. Massey, chairman of the board of AAAS. Third, AAAS is joining the AAS and the African Regional Center for Technology to develop the first comprehensive directory of scientists and institutions in Africa, in collaboration with the United Nations Educational, Scientific, and Cultural Organization, the Third World Academy of Sciences, and the newly formed Pan-African Union for the Advancement of Science and Technology. The project is being overseen by J. Thomas Ratchford, associate executive officer of AAAS and head of its Office of International Science.

**African Academy of Sciences** **\$250,000**

To improve interdisciplinary communication and collaboration among members of the African scientific community, the African Academy of Sciences (AAS) was established in 1985. With this 18-month grant, the Corporation joins the Third World Academy of Sciences, the World Bank, the John D. and Catherine T. MacArthur and Rockefeller foundations, and other donors in supporting AAS's development of a network of African scientific organizations. Among other activities, AAS will compile a comprehensive directory of African scientists and scientific institutions and publish the first pan-African, multidisciplinary journal for scientists and policymakers. AAS will also convene periodic meetings of African thinkers and policymakers to exchange ideas about African development.

**Harvard University** **\$250,000**

In 1983 the Japanese Institute for Seizon (approximate translation is "global sense of survival") and Life Sciences established the Takemi Program in International Health at Harvard University. The program, which seeks to improve health services in developing countries, provides ten-month fellowships at Harvard for leading health professionals and scholars from developed and developing countries. These fellowships offer visiting scholars a period of uninterrupted time in which to conduct specific research projects linked with health policy reforms in their home countries. In addition to the fellowships, the program offers visiting professorships to senior, highly experienced individuals in the health field. Once the fellows and

visiting professors have returned to their home countries, the program helps keep them informed about one another's work through newsletters. This grant is supporting five Takemi fellows from several sub-Saharan African countries over the next three years. It is also supporting continued networking activities of the program. Academic guidance is provided by Lincoln C. Chen, the first Dr. Taro Takemi Professor in International Health at Harvard. Michael R. Reich is executive director.

**Ministry of Health, Uganda**

**\$150,000**

Under the Ugandan military government, which was in power from 1971 to 1979, that country's previously effective system of government health care services was all but destroyed. While the new government has been struggling to rehabilitate those services, funds are severely limited. This three-year grant is enabling the Ministry of Health to conduct a study that will suggest more efficient use of existing funds for health care; explore methods of increasing resources for use in the health sector; and lay groundwork for a partnership between the Ministry of Health and the private sector. The project team includes members of the health planning unit, the Ministry of Planning and Economic Development, and faculty members from Makerere University. They are being advised by Kenyan economists who have worked on related problems and by experts from the World Health Organization and the World Bank. At the end of the study, a comprehensive report will be presented at a series of national and regional workshops and seminars for policy-makers, planners, and managers in Uganda. This grant, as well as the three described below (to the universities of Dar Es Salaam, Nairobi, and Ibadan), is the result of a collaboration between the Corporation and the International Health Policy Program (IHPP). IHPP was recently initiated by the Pew Memorial Trust, the World Health Organization, and the World Bank to foster studies and plans of action for governmental and nongovernmental organizations concerned with meeting the health needs of the poor in developing countries. The aim is to prepare young analysts from developing countries to conduct policy research and to help them establish working relationships with government policymakers.

**University of Dar Es Salaam**

**\$150,000**

Since 1981 the Tanzanian Ministry of Health has been planning and administering an Essential Drug Program with the help of the World Health Organization. The program attempts to identify the medical needs of different segments of the Tanzanian population and determine the specific drugs required. The plan is to buy drugs in quantity at reduced cost and devise plans for distribution and for educating the public in proper usage. This 29-month grant is supporting a team of researchers from the University of Dar es Salaam and of staff from the Ministry of Health in an evaluation of the social, health, management, and economic aspects of the program. The team is also ascertaining the effectiveness of public education about the availability, handling, and storage of the drugs. Led by Immanuel K. Bavu and Gaspar K. Munishi, professors of political science and public administration at the



university, the researchers are assisted by Philip Hiza, chief medical officer of the Ministry of Health. They are paying particular attention to the procurement, distribution, and regulation of drugs at the district and subdistrict levels and to the ability of the program to sustain itself once foreign resources are withdrawn.

### **University of Nairobi**

**\$150,000**

About 60 to 70 percent of the people of Kenya are not effectively covered by government- or privately sponsored health services. With this three-year grant, a team of experts in economics and health care from the University of Nairobi is conducting a study of Kenyans' perceptions and utilization of health services, based on interviews with community discussion groups and members of individual households. The research team is working with the newly formed District Health Management Teams of the Ministry of Health to identify and explain the factors that prevent people from using available health services and then to determine the most cost-effective ways of expanding the reach of those services. The team is led by university health economists Germano M. Mwabu and Joseph K. Wang'ombe, and by social science researcher Violet N. Kimani.

### **University of Ibadan**

**\$146,000**

This three-year grant is supporting a team from the University of Ibadan as it develops a comprehensive picture of the state of health care in Nigeria and makes recommendations for change. The interdisciplinary team, composed of economists, a sociologist, and a psychologist, is working with the Nigerian Ministry of Health and the World Bank to design a plan that will contribute to the Nigerian government's goal of "Health for All Nigerians" by the year 2000. The team is focusing particularly on the accessibility of health care facilities, outlining the factors that prevent Nigerians from using available health services, and suggesting improvements that are likely to include increased cooperation with traditional practitioners. They are also investigating the economics of existing health resources and attempting to discover ways to reduce costs. The key researchers are John F. E. Ohiorhenuen, Ginigeme F. Mbanefoh, and Olayiwola A. Erinsho.

### **Harvard University**

**\$100,000**

In 1987, with the support of the Edna McConnell Clark Foundation, Harvard University's School of Public Health launched a Commission on Health Research for Development. The Commission's objective is to improve health in the developing world by expanding medical research and facilitating the application of research results. The 13-member commission, which will have a two-and-a-half-year life, has set out to accomplish four main goals: to analyze the strengths, weaknesses, and gaps in current research on health problems in developing countries; to promote reforms; to strengthen the medical research capabilities of developing countries; and to consider further avenues of financial support for that

research. Within those broad areas of concern, individual task forces are producing papers on such topics as women’s health, sexually transmitted diseases, and the effective application of emerging concepts and technologies. This three-year grant is helping support the commission and its staff in gathering data and in preparing and disseminating its final report. Lincoln C. Chen, an expert in international health, is directing the project. He is advised by David E. Bell, a specialist in population science, and Richard Feachem, a specialist in environmental health.

Discretionary Grants

<i>Africa Leadership Foundation</i> , toward the inaugural meeting and program planning for the Africa Leadership Forum	\$25,000
<i>Harvard University</i> , toward planning a collaborative training program in health and behavioral research in sub-Saharan Africa	\$25,000
<i>Institute of International Education</i> , toward a meeting of International Health Policy Program participants	\$25,000
<i>Kenya Medical Research Institute</i> , for an information management system	\$25,000
<i>New York Academy of Sciences</i> , toward a conference on biomedical science and developing countries	\$25,000
<i>University of the West Indies</i> , toward support of the inaugural meeting of the Caribbean Academy of Sciences	\$25,000
<i>University of Zimbabwe</i> , toward improvement of the health information system of the medical library	\$24,000
<i>University of Sierra Leone</i> , for a study of the feasibility of developing a national science and technology information system	\$23,000
<i>National Academy of Sciences</i> , toward support to enable participants from Commonwealth countries to attend a symposium on scientific institution-building in Africa	\$10,570
<i>Zambia Association for Research and Development</i> , toward development of a national women’s resource center in Zambia	\$7,000

Maternal health

Pan American Health Organization\$700,000

The United States-Mexico border is the largest and most populous border between any industrialized and developing country in the world, with a combined population of 61 million people. Over the past two years the Corporation has been exploring the feasibility of binational research programs in the ten border states, where birth and disease rates are unusually high and per capita income is low.

With this two-year grant, the Corporation renews support to the Pan American Health Organization (PAHO) as it launches a program of research, education, and training, emphasizing maternal, child, and adolescent health. Hector Pizarro directs the project. He and his staff are producing a detailed study of the social, cultural, and economic factors that affect the health of border-area residents. Using the results of the study, PAHO will promote specific health care policies to be put into effect by both the Mexican and U.S. governments. It will offer clear areas of action for nongovernmental agencies interested in health care among border populations; establish a binational network of health and social service professionals dedicated to education on health issues and improved access to health care facilities; and strive to improve mechanisms of communication and cooperation in health matters between states on both sides of the border. The Pew Memorial Trust is also contributing to this effort.

<b>Program for Appropriate Technology in Health</b>	<b>\$250,000</b>
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The Program for Appropriate Technology in Health (PATH) recently established a Safe Birth Program to convey modern health technologies to pregnant women in developing African countries, where complications arising from pregnancy and childbirth are the most common cause of death among women of childbearing age. With help from a previous Corporation grant, PATH has tested the Safe Birth Program in Malawi and Zambia. PATH representatives trained nurses in those countries, who subsequently trained traditional birth attendants, to use simple technologies to detect complications in pregnant women and such postnatal tools as a portable incubator and infant scale. Those initial tests have provided data for improving the teaching process. This two-year grant is supporting phase two, enabling PATH to extend its technical assistance to Sierra Leone and Nigeria. It will also disseminate information about the Safe Birth Program through a series of regional workshops, reports, and publications and through presentations at national and international meetings of health care professionals. The program is directed by Vivien Davis Tsu, deputy director of PATH's primary health technologies department.

<b>African Medical and Research Foundation</b>	<b>\$248,750</b>
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The African Medical and Research Foundation (AMREF) was founded in 1957 to provide health services to remote parts of Kenya and Tanzania through the use of small aircraft. AMREF has since expanded its "Flying Doctor Service" to include eight African countries. It now trains medical personnel in rural areas; educates rural communities on preventive measures involving water, sanitation, agriculture, and nutrition; and produces health education materials. It also operates a mobile ground unit and medical research laboratory. AMREF has received three previous grants from the Corporation, the most recent of which helped to establish an Evaluation and Operational Research Unit (EVARU). EVARU is currently assessing the effectiveness of AMREF's community health projects, documenting and ana-



lyzing the expansion of pilot projects into large-scale systems of health services and education, and studying the ways in which AMREF's maternal and child health projects have been integrated into broader-based health schemes. The results will be disseminated through reports, workshops, and conferences. This grant is providing partial support to EVARU over the next two years. Under the directorship of Wilson K. Kisubi, EVARU will complete several major evaluations and train other AMREF members in methods of research and evaluation so that continuing assessments can be made by AMREF staff.

International Council of Nurses

\$200,000

Nurses in developing countries are central to the provision of efficient, effective health care. Frequently working without direct supervision, in areas where doctors are scarce or nonexistent, they shoulder greater responsibility than do their counterparts in the United States and other developed countries. Like nurses in the U.S., however, those in developing countries are often subject to traditional and legal restrictions on the services they can provide. This three-year grant is supporting a nurse training and advocacy program by the International Council of Nurses, an international umbrella organization of 98 nursing associations representing more than one million members. The Corporation's grant is sponsoring the participation of two representatives from each of nine English-speaking African countries in a series of three annual workshops for nurses designed to improve their ability to perform such essential primary health care tasks as research and management, with particular reference to teaching, supervision, planning, evaluation, and health policy development. In addition to the workshops, the council promotes legislation in various countries to increase the legally sanctioned responsibilities of nurses and publishes the *International Nursing Review*.

Pan American Health Organization

\$48,600

While the level of infant, child, and maternal health in Caribbean nations is generally higher than that in African or Latin American countries, it still lags well behind the standard of health enjoyed by citizens of developed countries. This six-month grant is supporting planning of the "Caribbean Cooperation in Health," a collaboration between the countries of the Caribbean and the Pan American Health Organization (PAHO) designed to increase the exchange of technical resources and information about health needs among Caribbean countries. The program, which focuses especially on maternal and child health, will provide training and continuing education for health professionals in various countries, staff exchanges among Caribbean institutions, long distance teaching, and a health information newsletter.

Discretionary Grants

Defense for Children International-USA, for a study of the effects of maternal mortality on African children

\$25,000

<i>Duke University</i> , for planning collaborative programs to improve maternal and child health in Tanzania	\$25,000
<i>Family Care International</i> , for a survey of selected organizations working in Africa to promote women's health	\$25,000
<i>University of Ibadan</i> , for a workshop on maternal health	\$25,000
<i>Kenyatta University</i> , toward participation in an international study of preprimary education	\$25,000
<i>Trust Through Health</i> , toward planning for a U.S.-Soviet cooperative demonstration project in primary health care in Tanzania	\$25,000
<i>University of Ibadan</i> , toward participation in an international study of preprimary education	\$24,300
<i>National Academy of Sciences</i> , for planning by the Institute of Medicine for an international conference on women's work for health in developing countries	\$23,000
<i>University of Nigeria</i> , for planning research on maternal mortality in Nigeria	\$21,000

#### *U.S. public understanding of development*

#### **WGBH Educational Foundation** **\$400,000**

WGBH-TV, the public television station in Boston, is producing a 13-unit interdisciplinary "telecourse" on Latin America and the Caribbean in association with Columbia, Florida International, and Tufts universities. Entitled *The Other Americas*, it is designed to be a college-level introductory course on a vast region with a multiplicity of nations, ethnic groups, cultures, religions, languages, economic policies, and systems of government. It will bring together the analytic tools of a range of disciplines, focusing on the dynamics that have shaped the region's past and the processes that are shaping its future. Planned are ten one-hour television programs for prime-time airing over the Public Broadcasting Service in 1992 and preparation of a book for a general audience as well as a new undergraduate textbook and related printed materials. With this two-year grant, the Corporation joins the Annenberg/CPB Project, the John D. and Catherine T. MacArthur and Rockefeller foundations, and other funders in supporting production of the course and series. Executive producer is Judith Vecchione, who was senior producer of the WGBH series on the civil rights movement, *Eyes on the Prize*.

#### **African-American Institute** **\$250,000**

Since 1975 the Corporation has provided core support for the African-American Institute's Program on Policy Issues in African-American Relations, a source of reliable information on African issues for leaders from the public and private sectors

in the United States. The program, which began as a series of meetings between U.S. legislators and African leaders, has expanded to include briefings and seminars for congressional aides, regional conferences, and trips to Africa by delegations of government representatives, journalists, and others. The institute also sponsors visits to the U.S. by prominent Africans. Of particular importance is the recently established series of meetings between U.S. policymakers and black South African church, trade union, and media leaders. The institute holds an annual African-American Conference, alternately in the U.S. and Africa, and also hosts smaller, more focused meetings on such issues as the potential for private investment in Zimbabwe and the prospects for relief of Zambia's commercial debt. In collaboration with the Nieman Foundation at Harvard University, the institute is sponsoring a series of conferences on the role of the news media in and concerning South Africa. With this grant the Corporation extends its support to the institute for another year, joining the Ford Foundation, the institute's other primary funder.

**World Commission on Environment and Development**

**\$200,000**

The World Commission on Environment and Development was established in 1983 by the United Nations General Assembly to examine the effects of development on the environment, to propose new forms of international cooperation in that area, and to raise the levels of understanding and commitment on environmental issues by individuals as well as governments and nongovernmental organizations. In 1987 the commission, chaired by Norwegian prime minister Gro H. Brundtland, produced its final report, *Our Common Future*. The report maintains that a degraded and deteriorating environment and resource base is a real and growing threat to development in an increasing number of countries. It urges concerted international efforts to act on environmental issues. This one-year grant is helping the commission disseminate the report, under the leadership of Secretary General Jim MacNeill. Commission staff members are meeting with finance ministers and the heads of state of the Organization of African Unity and similar groups in Latin America and Asia as well as with the chief executive officers of multinational corporations in the United States and Europe. The report is being distributed via the United Nations to country delegations and prominent nongovernmental organizations.

**Radcliffe College**

**\$199,700**

Radcliffe College is using this three-year grant to host a distinguished international visitor each year at its Mary Ingraham Bunting Institute. The visitors will be women from English-speaking countries of sub-Saharan Africa and the Caribbean whose achievements and leadership merit recognition in the United States. The program is open to academics in the sciences or social sciences, policymakers, and heads of development agencies. The fellowships, to last from four to six months, will permit the visitors to teach, write, and deliver a major lecture at Radcliffe and participate in a colloquium based on the lecture topic. The visitors will also travel to relevant professional meetings, conferences, and symposia at other universities. Wherever



appropriate, Radcliffe will organize meetings with journalists and with senior U.S. policymakers in Washington. The first international visitor is Mamphela A. Ramphele, a physician, scholar, and activist from South Africa.

Overseas Development Council

\$50,000

The Overseas Development Council undertakes policy studies on aspects of United States relations with developing countries, holds meetings of experts on issues in Third World development, and conducts outreach programs to the press, policymakers, and Congress. This grant is providing a year's support for the council's Congressional Staff Forum, which holds bipartisan seminars for congressional staff members on development issues in Third World countries. Directed by William Hellert, the forum schedules a seminar on each major Third World-related issue before it comes before Congress so that members of Congress and their staffs can approach the proceedings from a background of reliable current information. A steering committee selects the topics and speakers, and the forum's staff prepares a two-page background memo summarizing the issues for participants and for those who are interested but are unable to attend.

Discretionary Grants

<i>Curry Foundation</i> , toward a resource guidebook for development educators	\$25,000
<i>Development Group for Alternative Policies</i> , toward a symposium on U.S. development assistance policy in the eastern Caribbean	\$25,000
<i>Global Tomorrow Coalition</i> , toward public education in the United States concerning international development	\$25,000
<i>International Development Conference</i> , toward public education about international development	\$25,000
<i>Michigan State University</i> , toward a conference on U.S. relations with developing countries in the 1990s	\$25,000
<i>Overseas Development Council</i> , toward preparation of studies on U.S. development cooperation issues	\$25,000
<i>Royal College of Obstetricians and Gynaecologists</i> , toward lecturing, consulting, and writing on maternal mortality in sub-Saharan Africa by Kelsey A. Harrison	\$25,000
<i>Worldwide Documentaries</i> , toward distribution of a film on a South African church leader	\$25,000
<i>Duke University</i> , for planning a conference on poverty and change in southern Africa	\$24,900

<i>Akin O. Adesola</i> , for expenses for lectures, seminars, and informal consultations at U.S. institutions	\$23,000
<i>Consortium for International Cooperation in Higher Education</i> , toward a public education project on U.S. relations with developing countries	\$17,400
<i>Association of West European Parliamentarians for Action Against Apartheid</i> , toward participation by representatives of present or former Commonwealth countries in two conferences on Western assistance for regional political and economic development in southern Africa	\$15,000
<i>National Council for International Health</i> , toward public education in the United States about the activities of the World Health Organization	\$15,000
<i>Caribbean Resource Development Foundation</i> , toward a meeting of leaders from the Caribbean and North America on Caribbean development	\$5,000
<i>Institute of International Education</i> , toward a conference on scholarships for black South Africans	\$3,000

South Africa

<b>National Progressive Primary Health Care Committee</b>	<b>\$167,300</b>
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This two-year grant is helping the National Progressive Primary Health Care Committee establish a primary health care network in South Africa which will seek to identify gaps in research, training, and health service delivery in South Africa today; to test ways of filling those gaps; and to draw together a coherent framework for future health policies. Members of the black-led, interracial committee and of the newly established network range from university-based researchers who contributed to the Second Carnegie Inquiry into Poverty and Development in Southern Africa to grass roots “health activists” striving to integrate community health care into their own rural empowerment efforts. Each of five regional subcommittees is undertaking a needs assessment of its area based on site visits and on review of previous studies of health problems, including those enumerated in the inquiry’s report. The committee will use these assessments to identify underserved areas and recommend specific projects that meet pressing needs or test significant innovations. An annual national congress, workshops organized by the regional groups, and interregional project visits will promote the sharing of ideas among the committee’s members. Other funding is provided by the Henry J. Kaiser Family Foundation.

<b>University of the Western Cape</b>	<b>\$90,000</b>
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The University of the Western Cape, which was originally reserved for South African students of mixed race, has recently opened its doors to all students and emerged as an important voice in the struggle against apartheid. In recent years the Corporation has joined the Ford, Rockefeller, and Kellogg foundations in

providing scholarships and funds for research and training at the university. The Corporation currently assists its Centre for Adult and Continuing Education, which trains adult educators based in community organizations and trade unions throughout the Cape Flats. This additional grant is helping the university maintain a secretariat for the faculty senate committee on international relations over the next three years. The committee's primary responsibility will be to process the numerous requests for collaborative research projects and staff exchanges submitted by colleges and universities throughout the world. Owen van den Berg, dean of the university's faculty of education, chairs the committee.

<b>Duke University</b>	<b>\$75,000</b>
	<b>\$59,600</b>

These two grants supported Allister Sparks, a South African who heads the Johannesburg bureau of the *Washington Post*, as a visiting lecturer in the Leadership Program of the Institute of Policy Studies and Public Affairs at Duke University. At Duke during the 1987-88 academic year and fall semester of 1988, Sparks became the catalyst of a series of on- and off-campus activities designed to improve student, faculty, and alumni understanding of the history and politics of South Africa and U.S.-South African relations. Sparks's program of teaching, lectures, and conferences was organized by Bruce L. Payne, director of the leadership program. Sparks also spent his time at Duke researching and writing a book tentatively entitled *The Mind of South Africa*, to be published in the United States by Simon & Schuster. Sparks has been a Nieman Fellow at Harvard University and received the Pringle Award for Feature Writing in Newspapers from the English Academy of South Africa. He served as editor of the *Rand Daily Mail*, where his criticism of the South African government earned him the title of International Editor of the Year from the World Press Review. In 1986 the *Washington Post* nominated him for a Pulitzer Prize.

<b>TransAfrica Forum</b>	<b>\$75,000</b>
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The TransAfrica Forum provides information on and analysis of development issues in Africa and the Caribbean and explores the impact of U.S. policies in these regions. It holds meetings and briefings for members of Congress and their staffs, scholars, students, and journalists. Its two core publications, the *TransAfrica Forum* journal and the bimonthly *Issue Briefs*, reach some 1,300 subscribers, primarily leaders in the black community. The Corporation has supported the forum's work with two previous grants. This one-year grant is underwriting a fundraising and marketing effort on behalf of the forum's two publications. Randall J. Robinson is executive director.

<b>University of the Witwatersrand</b>	<b>\$75,000</b>
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The University of the Witwatersrand's Health Services Development Unit (HSDU) undertakes research and training in rural primary health care near South Africa's



northeastern border. HSDU trains personnel toward improving current primary health care services in rural areas and explores ways in which the national health care system might work in post-apartheid South Africa. HSDU-trained nurses now work in some 60 clinics throughout the northern and eastern Transvaal. The university's long-distance education scheme provides them with refresher courses and psychological support. A village development project is involving women's groups in the provision of basic sanitation and other public health interventions. With this one-year grant the Corporation joins the Henry K. Kaiser Family Foundation and the Anglo-American Corporation's Chairman's Fund in supporting the continuing efforts of HSDU's staff of doctors, nurse trainers, adult educators, and nurse midwives to upgrade rural health care services.

<b>Educational Opportunities Trust</b>	<b>\$50,000</b>
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The Educational Opportunities Council was formed in South Africa eight years ago to select black South African candidates for university study in the United States under a scholarship program organized by U.S. foundations, corporations, and universities. Now firmly established as the only black-led nongovernmental organization in South Africa offering a national scholarship selection mechanism, the council administers a range of degree-granting and nondegree fellowship programs for private and public donors in the U.S. and Europe. The Corporation has assisted the council since its inception and currently supports its role in recruiting and selecting candidates for the Career Development Fellowship Program run jointly by it and the Institute of International Education. The council established a research division in late 1986 to help evaluate and strengthen its fellowship programs as well as to stimulate and disseminate research on education and other issues of interest to the South African black community. This grant is helping meet the costs of the research unit over the next two years.

<b>Legal Resources Trust</b>	<b>\$50,000</b>
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For nearly ten years the Corporation has funded the Legal Resources Trust, South Africa's first public interest legal organization, which trains paralegal workers, undertakes test case litigation, and issues publications on the legal rights of blacks. The most recent Corporation grant, awarded in 1986, funded the opening of a fourth Legal Resources Trust office, in the city of Port Elizabeth, directed by attorney Fikile Bam. A period of increased government repression in Port Elizabeth's rural hinterland has necessitated the establishment of a satellite office in Grahamstown, a university and marketing town some 65 miles inland. That office is headed by Jeremy Pickering, an experienced advocate from the Port Elizabeth office, and attorney David Pitman. This grant is supporting the Grahamstown office over the next two years, as Pickering and Pitman advise local black residents of their rights, carry out litigation, and work with other community groups to train black legal apprentices in providing counsel to residents of smaller towns in the vicinity.

The Centre for Applied Legal Studies was established at the University of the Witwatersrand in 1978 with funds from the Corporation. Its training, research, publications, seminars, and test case litigation have been central to the development of public interest and human rights law in South Africa, educating the public and the legal profession about the potential role of law in society in protecting the rights of individuals. Affiliation with the university has given the centre's lawyers unusual latitude to criticize laws and legal judgments, because law faculty members are permitted public expressions of opinion that are denied lawyers in private practice. This grant is supporting the centre for the next two years. The centre is directed by John Dugard, a South African lawyer. Nicholas Haysom, Edwin Cameron, Gilbert Marcus, and Thabo Molewa make up the core professional staff. They work closely with junior attorneys, including promising black students from the university.

Discretionary Grants

<i>Black Lawyers Association Legal Education Centre</i> , toward support	\$25,000
<i>Duke University</i> , toward support for teaching and writing on South Africa	\$25,000
<i>Investor Responsibility Research Center</i> , toward a handbook for community development organizations in South Africa about sources of support	\$25,000
<i>Eastern Cape Legal Information and Support Services</i> , toward a legal training program	\$12,000
<i>Howard University</i> , toward a conference on U.S. policy toward South Africa	\$10,000

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## Avoiding Nuclear War

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The objectives of the Avoiding Nuclear War program are to refine and expand the intellectual framework for assessing the risks of nuclear war and the prospects for reducing them; to establish mechanisms to foster sustained interdisciplinary work in the area of avoiding nuclear war; and to encourage continuing interaction between researchers and the policymaking community.

Grants emphasize independent, science-based scholarship to develop new information and ideas and also to support selected projects communicating the results of scholarly work to the American public.

The first phase of the Corporation's program entailed a limited number of relatively large grants to universities and other institutions with a strong multidisciplinary approach to the study of international security, arms control, the Soviet Union, and U.S.-Soviet relations. The *Carnegie Quarterly's* spring 1985 issue describes some of these multidisciplinary programs in greater depth. The Corporation does not anticipate making many more grants for programs of this kind, however.

In its second phase, the program will continue to support research and analysis of selected problems with particular bearing on the avoidance of nuclear war. Because of their complexity or technical difficulty, the problems require attention by the most competent experts independent of government.

The program is also supporting projects to educate the public in the United States on issues relating to the avoidance of nuclear war, primarily those issues emerging from the analytical studies mentioned above.

The program does not support school or college curricula or projects.



**Harvard University**

**\$1,290,000**

With Corporation backing, the John F. Kennedy School of Government at Harvard University established an Avoiding Nuclear War project in 1983. The project is codirected by Graham T. Allison, dean of the school and a professor of politics; Albert Carnesale, academic dean of the school and a nuclear engineer; and Joseph S. Nye, professor of government at Harvard and director of the school's Center for Science and International Affairs. Under their leadership a multidisciplinary group of scholars and pre- and postdoctoral students is systematically analyzing the possible paths to nuclear war, the factors that might trigger a nuclear exchange, and actions that might be taken to reduce or eliminate those factors. In its first five years the project has produced a number of books, including *Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War* and *Fateful Visions: Avoiding Nuclear Catastrophe*. This third Corporation grant is funding the project over the next two years, during which time it will review its initial findings in light of recent changes in the world situation. The collaborators will continue their exploration into U.S.-Soviet relations in the long term and into conventional arms control in Europe and will carry out a "nuclear transition project" designed to educate members of the federal administration on the issues.

**Massachusetts Institute of Technology**

**\$1,100,000**

The Defense and Arms Control Studies Program at the Massachusetts Institute of Technology (MIT) was established to help strengthen the academic community's capacity to provide independent analyses of international security issues. This three-year grant builds on a previous Corporation grant, awarded in 1984, in supporting the program's continuing research. The program is codirected by Jack Ruina and George Rathjens, who are professors, respectively, of electrical engineering and political science at MIT. They are involving a group of professors and graduate and postgraduate students in clarifying the technical questions that underlie many security and arms control problems. The research of this group covers emerging weapons technologies and the effects of international political and economic factors on the threat of nuclear war, among other subjects. A book on the U.S. Navy and nuclear weapons by group members Steven Miller and Charles Glaser is forthcoming. Several other books on related topics are expected from other members in the next three years.

**Brookings Institution**

**\$900,000**

A group of specialists from the Brookings Institution's Foreign Policy Studies Program is conducting studies of Soviet security policies and how they interact with and respond to actions by the United States. Under the direction of John D. Steinbruner, participants in the program have, to date, produced a set of books and reports assessing current Soviet motives and intentions. This grant renews the

Corporation's support of the group's activities for another three years. Among the subjects being analyzed are the implications for Western powers of Mikhail Gorbachev's proposed economic reforms; the domestic politics of Soviet reform and its effect on Soviet foreign policy; U.S.-Soviet relations during the Reagan administration and the Soviet leadership transition; a hypothesized shift in Soviet political-military doctrine that may lead to a willingness to reduce offensive capability in Europe; Soviet strategic command and control systems; and U.S. and Soviet command and control systems for conventional forces. Brookings' scholars bring their analyses to public attention through speeches and articles as well as books. They run monthly seminars in Washington, D.C., for specialists in the executive agencies and other scholars. A second series of seminars has recently been organized for congressional staff members. Other funding for the program is provided by the John D. and Catherine T. MacArthur Foundation.

University of California, Berkeley

\$750,000

In 1985 the Berkeley-Stanford Program on Soviet International Behavior and the Institute of International Studies of the University of California, Berkeley, received a grant from the Corporation for research on Soviet policy and intentions in Africa, northeast Asia, and the Middle East. With this three-year grant, the researchers are extending their purview to include East Asia and the Pacific. They are also paying closer attention to Soviet domestic affairs and their relationship to Soviet foreign policy. To assess the nature and significance of domestic developments bearing on Soviet foreign policy, three separate studies are being conducted. The first focuses on the impact of domestic and international changes on Soviet political strategies. The second focuses on the process by which new approaches to international affairs emerge within Soviet academic and policymaking circles and how they are debated and shape foreign policy behavior. The third is concentrating on political struggles among the elite as a major cause of changes in Soviet thinking about foreign policy. Principal investigators include George W. Breslauer, Alexander Dallin, and Gail W. Lapidus. Their work will lead to a series of publications.

Center for Education on Nuclear War

\$150,000

Opinion polls indicate that most Americans believe it is United States policy to use nuclear weapons only in response to their use by others. In fact, the U.S. has declared that it will use nuclear weapons first if its forces are at a conventional disadvantage. Five years ago a controversial article in *Foreign Affairs* magazine urged adoption by the U.S. of a policy forbidding the first use of nuclear weapons. Its authors — Robert S. McNamara, McGeorge Bundy, George F. Kennan, and Gerald Smith — were all former senior security and diplomatic officials. They subsequently formed a nine-member study group, under the auspices of the Center for Education on Nuclear War, to refine their ideas and stimulate broader discussion of the issue among policymakers and the general public. This one-year grant builds on previous Corporation support for the study group as it works to disseminate

information about alternatives to current American nuclear policy. It holds periodic briefings for members of the executive branch, key members of Congress and their staffs, former government officials, representatives of public interest groups concerned with national security and arms control, the news media, and public opinion analysts.

*Research and dissemination on topics of special interest*

**International Research and Exchanges Board** **\$500,000**

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Since 1968 the International Research and Exchanges Board (IREX) has organized and managed scholarly exchanges in the humanities and social sciences between the U.S. and Eastern Bloc countries. IREX sponsors exchanges of individual researchers and has helped establish several binational commissions to bring American specialists together with their counterparts in the Soviet Union and Eastern Europe to conduct joint projects on topics of mutual concern. During periods of strain in U.S.-Soviet relations, like that which followed the Soviet invasion of Afghanistan in 1979, IREX's core academic and scholarly exchanges have remained relatively stable. Now, in the aftermath of the recent thaw in U.S.-Soviet relations, IREX is in a position to make maximum use of the new opportunities to improve communication and understanding between the two societies. With this two-year grant the Corporation, which has funded IREX programs since 1984, is supporting a series of binational commissions in such areas as economics, history, international relations, law, philosophy, sociology, social change, and education.

**Cornell University** **\$450,000**

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A Corporation-sponsored study of crisis stability and nuclear war, carried out by the Cornell University Peace Studies Program and the American Academy of Arts and Sciences in 1985, resulted in a report on the nature of command and control systems in the United States, the capacity of those systems to deal with crises, and how policies can be modified to avoid putting these systems under undue stress. This three-year grant is helping the study's two directors, physicists Kurt Gottfried of Cornell and Richard L. Garwin of International Business Machines Corporation, establish a permanent mechanism for the continued examination of these issues. Under Gottfried's leadership, they have assembled a core staff of specialists, housed in the Peace Studies Program at Cornell, who are studying security problems in U.S.-Soviet relations, beginning with a comprehensive examination of European security. Paul Bracken, a professor at Yale University, and Lloyd R. Leavitt, Jr., formerly vice commander-in-chief of the Strategic Air Command and deputy chief of staff for operations and intelligence of the U.S. Air Force in Europe, are participating in this initial study, along with European scholars and officials. The group will disseminate its findings and conclusions in interim reports and will ultimately produce a book.



**Institute for East-West Security Studies**

**\$247,000**

The signing of the intermediate-range nuclear forces (INF) treaty at the December 1987 summit, which eliminated American and Soviet medium- and short-range nuclear weapons, has increased the significance of military competition at the conventional level. To date, most Western research on conventional weapons has focused on technical analysis of NATO and Warsaw Pact force postures or analysis of the conventional balance. There has been little effort to address the changing political and military environment in which conventional arms control will have to take place. Toward that end, the Institute for East-West Security Studies has established an East-West Task Force on Seeking Security in the 1990s, which will bring together Eastern and Western specialists to discuss key issues in East-West relations. The task force is divided into three working groups focusing on economic, multilateral, and conventional arms control issues. This 21-month grant is supporting the Working Group on Conventional Arms: Control or Reduction. It is composed of 20 prominent Europeans, Soviets, and Americans who work with expert advisers. Karl Kaiser, director of research of the Foreign Policy Association, Federal Republic of Germany, is chairman. The institute will conduct special briefings and seminars to publicize the findings of the working group and the task force among policymakers, academics, business leaders, and the media. The working group will produce a number of interim reports, and the task force will release a final report upon completion of the project.

**Carnegie Endowment for International Peace**

**\$243,000**

Charges of noncompliance with arms control accords hamper relations between the United States and the Soviet Union. Since 1983 the Verification and Compliance Project of the Carnegie Endowment for International Peace has received Corporation support toward generating practical information, conducting independent analyses, and offering new approaches to verification of compliance with arms control agreements. Recently, global issues of verification were further complicated by the upsurge in commercial production and use of high-resolution observation satellites, a sophisticated method of surveillance that had previously been the exclusive province of the U.S. and Soviet intelligence communities. This one-year grant supported a series of seminars on the impact of commercial remote sensing on international security. The seminars examined areas of concern and benefits associated with the increased commercial availability of remote sensing, including use of satellite images for managing regional conflicts and the potential of satellite photos for helping prevent the spread of nuclear weapons. A concluding conference was held in Washington, D.C., in January 1989 for media representatives and U.S. and foreign government officials. The three principal investigators were Michael Krepon, Peter D. Zimmerman, and Leonard S. Spector, all senior associates at the endowment.

## Carnegie Endowment for International Peace

\$230,000

To alert the public to the dangers of nuclear proliferation and to stimulate further attention to that issue among policymakers, the media, and the scholarly community, the Carnegie Endowment for International Peace has since 1984 produced a series of book-length annual reports on the spread of nuclear weapons. The series is funded by the Corporation. Written by Leonard S. Spector, a senior associate at the endowment and former chief counsel to the Senate Energy and Nuclear Proliferation Committee, the annual reports include *Nuclear Proliferation Today*, 1984; *The New Nuclear Nations*, 1985; *Going Nuclear*, 1986; and *The Undeclared Bomb*, 1987. Each book offers continuity and new insight into the nonproliferation question by conducting a country-by-country review and an in-depth exploration of major developments in the field. This grant is supporting Spector in the production of annual reports for 1988 and 1989.

## Federation of American Scientists Fund

\$200,000

In February 1987 the Federation of American Scientists Fund, represented by its chairman, physicist Frank von Hippel, and Jeremy J. Stone, its director, signed an agreement for a five-year joint study with the Committee of Soviet Scientists for Peace and Against the Nuclear Threat, then chaired by Evgeniy P. Velikhov, vice president of the Soviet Academy of Sciences. With this grant the Corporation joins the W. Alton Jones Foundation in funding the study during its first two years. The study involves an investigation of the feasibility of verifying arms control agreements providing for reductions of, and qualitative limits on, nuclear weapons. Participants hope to make pilot visits to nuclear weapons-related facilities in both countries, to develop prototypical procedures and equipment, and to explore the likely limits on the level of available information and its reliability. The federation plans to hold a two-week meeting each year, alternately in the U.S. and the Soviet Union, involving 10 to 15 American and Soviet scientists. Each year the project will produce a volume detailing its findings. It will use these findings as the basis for shorter, more popular articles and for briefings to interested branches of the U.S. and Soviet governments.

## Charles F. Kettering Foundation

\$200,000

Lack of knowledge about Soviet domestic and foreign intentions has impeded American thinking about security, defense analysis, arms control, and measures to reduce the danger of nuclear war. An important source of information on Soviet thinking is the Dartmouth Conference, an activity of the Charles F. Kettering Foundation, which since 1960 has conducted biennial dialogs between informed, nonofficial citizens of the United States and the Soviet Union on major political, military, and economic issues. Three task forces — on arms control, political relations, and regional conflicts — examine specific issues during the intervals between the biennial meetings. This 17-month grant is supporting the Task Force on Political Relations, which explores such issues as bilateral political and economic relations,

concepts of security, arms control, human rights, and regional conflicts. It is chaired on the American side by Seweryn Bialer, professor of political science at Columbia University, and on the Soviet side by Vitaliy Zhurkin, director of the Institute of Europe of the Soviet Academy of Sciences. The grant is also helping fund a public participation program designed to promote dissemination of the results of the conferences among the general public by the Domestic Policy Association's National Issues Forums, a community outreach program that encourages well-informed individuals to discuss issues with their communities and arrive at a common assessment.

**Parliamentarians Global Action for Disarmament,  
Development, and World Reform**

**\$200,000**

This two-year grant is helping to launch an international security effort by Parliamentarians Global Action for Disarmament, Development, and World Reform (PGA), a group of more than 600 government officials in 36 countries working to promote peace and international security through innovative approaches to disarmament. PGA, which has received two Corporation grants in the past, is developing practical recommendations toward changing international relations from a system of stabilized deterrence to one less bipolar and coercive. Led by chairman Olafur Ragnar Grimsson of Iceland and secretary general Nicholas Dunlop of New Zealand, PGA has initiated an annual Global Security Planning Conference, the first meeting of which was held in Washington, D.C. The meetings involve approximately 100 PGA members and other leaders of government and society and are organized into working subgroups on key aspects of the problem, such as arms reduction, verification, peacekeeping, mediation, and economic conversion. These groups will meet around the world between plenary sessions of the conference and bring draft proposals to the plenary sessions. After two or three years of this unofficial but quasi-governmental process, PGA will endeavor to transform the function into a more formal, governmental forum, possibly under the auspices of the United Nations.

**Social Science Research Council**

**\$178,000**

During the two decades preceding Mikhail Gorbachev's leadership, American scholarship in Soviet domestic politics declined. Senior scholars and specialists turned their attention to other areas of Soviet studies, and the number of graduate students entering the field dwindled. Now, at a time of significant changes in the Soviet Union and in U.S.-Soviet relations, the need for experts on Soviet domestic politics is more critical, and the human resources available to do serious analysis and interpretation of Soviet internal developments are inadequate. This grant is funding the first two in a proposed series of annual summer workshops on Soviet domestic politics staged by the Joint Committee on Soviet Studies of the Social Science Research Council and the American Council of Learned Societies. The workshops bring together young scholars and advanced graduate students in var-



ious social sciences for two weeks of intensive study and discussion with senior scholars in an effort to revitalize the field and develop a network of committed specialists conducting research in it. The first workshop was held in June 1988 at the University of Toronto. The second is slated for June 1989. Peter Solomon, professor of political science at the University of Toronto, and Thane Gustafson, associate professor of government at Georgetown University, are codirectors.

### **International Research and Exchanges Board**

**\$160,000**

Many experts believe that the gravest nuclear threat lies not in formally declared war but in inadvertent escalation of tensions stemming from miscommunication, miscalculation, or accident. This two-year grant continues the Corporation's support of the Joint Study on Crisis Prevention and Settlement, a collaborative activity of the Commission on the Humanities and Social Sciences of the American Council of Learned Societies and the Soviet Academy of Sciences, which is administered in the United States by the International Research and Exchanges Board. It consists of prominent American and Soviet scholars who meet approximately every nine months, alternating locations between the United States and the Soviet Union. Under the cochairmanship of Graham T. Allison, dean of the John F. Kennedy School of Government at Harvard University, and Georgy Arkadievich Arbatov, director of the Institute for U.S.A. and Canada Studies, the U.S.-Soviet exchange is concerned specifically with crisis prevention and settlement and the development of international mechanisms for governing crises. *Windows of Opportunity: From Cold War to Peaceful Competition in U.S.-Soviet Relations*, a book summarizing the group's work to date, is forthcoming. The group's current projects include expansion of the mandates of the recently established Washington and Moscow risk reduction centers, and development of an exchange program among younger Soviet and American scholars on the topics of crisis prevention and improvement of long-term U.S.-Soviet relations.

### **American Academy of Arts and Sciences**

**\$150,000**

The differing interpretations of the existing Anti-Ballistic Missile (ABM) Treaty illustrate a problem resulting from rapidly advancing technology: no treaty can completely anticipate the ways in which technological developments may alter interpretations of the agreement in the future, and there is now no accepted international forum or process by which these changes might routinely be negotiated. The American Academy of Arts and Sciences' Committee on International Security Studies used this grant to stage a one-year study of ways to improve the management of an ABM Treaty regime. The project was codirected by Paul M. Doty, professor of biochemistry and director *emeritus* of the Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government, and Antonia H. Chayes, an attorney and former undersecretary of the Air Force. Doty and Chayes studied the problem with a group of technical experts and lawyers, including persons who played key roles in negotiating and implementing

the original ABM Treaty and other Strategic Arms Limitation Talks agreements. They also compared approaches with a parallel group of Soviet specialists conducting a similar study in Moscow. The participants all contributed chapters to a book, which will soon be published, for the informed general public as well as officials and policymakers.

Johns Hopkins University

\$133,000

Traditionally, national security and arms control have been viewed in the United States as serving competing rather than complementary objectives. The Foreign Policy Institute of Johns Hopkins University’s School of Advanced International Studies is using this 18-month grant to pursue a project aimed at defining a new strategic framework to harmonize the West’s objectives for military forces with its arms control negotiations. The project’s director and principal researcher is Lynn E. Davis, a fellow at Johns Hopkins who has served on the National Security Council staff and was involved in coordinating the U.S. negotiating positions on the second Strategic Arms Limitation Talks. Harold Brown, former U.S. secretary of defense and currently chairman of the Foreign Policy Institute, chairs the project’s advisory group. The project encompasses a historical overview of U.S. defense and arms control policies regarding both conventional and nuclear forces and an analysis of the critical strategic issues that the West will confront over the next few years, with recommendations for an overall plan of action. Davis and Brown will conduct a series of discussions with experts and public affairs groups in the U.S. and Europe to promote Western consensus on defense and arms control policies.

Discretionary Grants

<i>Ad Hoc Soviet Research Group for a U.S.-Soviet Project on the Educational Uses of Computers in the Early Elementary Grades</i> , toward expenses of the project	\$25,000
<i>American Academy of Arts and Sciences</i> , toward workshops on conventional force restructuring and arms control	\$25,000
<i>American Academy of Arts and Sciences</i> , toward an international study of arms control verification issues	\$25,000
<i>Brookings Institution</i> , toward research and writing on international relations by Harold Saunders	\$25,000
<i>Center for Strategic and International Studies</i> , for a conference on Soviet civil-military relations and implications for East-West relations	\$25,000
<i>Alex Gliksman</i> , for research and writing on emerging conventional arms technology	\$25,000
<i>Global Outlook Education Institute</i> , toward research on Soviet “new thinking” about international security	\$25,000

<i>Helsinki Watch</i> , toward support of an international human rights mission to the Soviet Union	\$25,000
<i>Institute for East-West Security Studies</i> , toward an international volume of essays on conventional arms control	\$25,000
<i>International Council of Scientific Unions</i> , toward a joint UN/ENUWAR workshop on the consequences of nuclear war	\$25,000
<i>Pugwash Conferences on Science and World Affairs</i> , toward a symposium on peace and security in the Pacific	\$25,000
<i>Richard A. Scribner</i> , for support of research on arms control verification issues	\$25,000
<i>University of California, Los Angeles</i> , for participation by African representatives in a conference on U.S.-Soviet cooperation for Africa	\$25,000
<i>University of Wisconsin-Madison</i> , toward research and writing on the enforcement of nuclear export controls	\$25,000
<i>Yale University</i> , for an analysis of public attitudes about national security	\$25,000
<i>Columbia University</i> , for a faculty seminar on the political psychology of Soviet-American relations	\$9,130

*Improved communication between scholars and policymakers*

<b>Aspen Institute for Humanistic Studies</b>	<b>\$450,000</b>
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Former Senator Dick Clark, senior fellow at the Aspen Institute for Humanistic Studies, is directing a project aimed at building a cadre of some 30 members of Congress who have an in-depth knowledge of Soviet affairs. Previous Corporation support enabled Clark to run two three-day workshops in 1984-85, bringing together a bipartisan group of senior administration officials, legislators, and experts on the Soviet Union to examine the U.S.-Soviet relationship and discuss U.S. policy in light of that relationship. Clark has since mounted a full-scale program with the help of a second Corporation grant. This third grant continues support for the program over 16 months. Four major conferences and four breakfast meetings have been held, and others are planned. The core participants, made up primarily of people with leadership positions in both parties and both chambers of Congress, have been the same throughout. Michael E. Mandelbaum, a senior fellow for East-West relations at the Council on Foreign Relations in New York, is assistant director.

<b>Public Agenda Foundation</b>	<b>\$350,000</b>
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In 1986 the Corporation provided funds for the launching of an experiment in public education called "The Public, the Soviets, and Nuclear Arms." A joint project of the Public Agenda Foundation and the Center for Foreign Policy De-



velopment at Brown University, this experimental education program introduced citizens in several communities to complex policy issues and helped them choose among several options, based on their own values and beliefs. The result was four “alternative futures” — four views of the U.S.-Soviet relationship in the year 2010. This one-year grant is helping support the project through its subsequent phases. During 1988, groups of representative citizens in four test cities were educated about the short- and longer-term policies that would lead to each of these possible futures. They were asked to choose among them. Thus far the project has produced information about the public’s views on these issues, the range of policy initiatives the public will accept, and ways in which education and leadership may influence what the public understands and accepts. These findings are being disseminated through print and video materials and through briefings to the president, members of Congress, administration officials, senior foreign policy advisors, media representatives, and business and community leaders around the country. A book describing the project is being prepared for general readers.

Aspen Institute for Humanistic Studies

\$200,000

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The Aspen Strategy Group is a 22-member gathering of academics and policymakers dedicated to advancing policy and practice in international security, arms control, and East-West relations. The group, which meets three times a year, is a source of communication within the arms control community and of reports for use by government and the general public. Under a previous Corporation grant, the group published reports on such topics as the Strategic Defense Initiative, anti-satellite weapons and U.S. military space policy, chemical weapons and Western security policy, and conventional forces and arms control in European security following the Intermediate Nuclear Forces Agreement. Members belong for no more than two three-year terms. William J. Perry, a former undersecretary of defense for research and engineering, is chairman. He shared the chairmanship with Brent Scowcroft until Scowcroft’s appointment as National Security Advisor. Members past and present include Senators William S. Cohen, Sam Nunn, John W. Warner, and Albert Gore, Jr., and senior academics from Stanford, Harvard, and Cornell universities and the Massachusetts Institute of Technology. Membership also includes representatives of industry, the press, the legal profession, and the military. This grant is supporting the group’s meetings, seminars, and publications over the next two years.

Discretionary Grants

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<i>Columbia University</i> , for preparation of educational materials on the verification of current and prospective nuclear test ban treaties	\$25,000
<i>Fund for Peace</i> , toward discussions of arms control between scholars and policymakers	\$15,000

New York University

\$250,000

The American public receives most of its information about national security, the arms race, and U.S.-Soviet relations from the print and electronic media. In an effort to monitor the quality of reporting on those issues, New York University (NYU) established a Center for War, Peace, and the News Media three years ago with Corporation funds. Under the leadership of codirectors David M. Rubins and Robert Karl Manoff, it routinely monitors and archives the work of eleven newspapers, three news magazines, and the three national television networks. *Deadline*, the center's bimonthly review of international journalism, is now the country's most widely circulated journalism review of its kind. The center is also conducting research on the sources of information most and least often utilized by the media and is arranging annual meetings between U.S. and Soviet journalists, both in this country and the Soviet Union. It produces occasional papers offering in-depth, scholarly examination of how international security topics are covered, and offers courses in international security reporting to graduate students at NYU. With this two-year grant, the Corporation is joined by a number of other funders, including the W. Alton Jones and the John D. and Catherine T. MacArthur foundations.

ACCESS: A Security Information Service

\$200,000

ACCESS was founded in 1986, with the help of Corporation funds, to answer questions and provide referrals to congressional staff members, journalists, and the public about international security issues. Most requests are handled over the telephone. In addition to providing information, ACCESS analyzes the nature of the inquiries it receives and attempts to identify trends in public interest in security issues and gaps and deficiencies in public knowledge. It has recently begun producing two publications, *Resource Briefs* and *Security Spectrum*, which summarize particular security issues, outline different points of view, and list resources for further information. ACCESS also produces three basic directories in the security field: *The ACCESS Resource Guide: An International Directory of Information on War, Peace and Security*; *Search for Security*, an updated directory of foundations interested in security issues; and *The Grass Roots Peace Directory*, a regional directory of local public interest organizations concerned with questions of peace and security. This grant renews Corporation support for two more years, during which time ACCESS's staff of seven, headed by Mary E. Lord, will expand to meet the increasing demand for the organization's services.

Discretionary Grants

<i>Educational Foundation for Nuclear Science</i> , for a marketing strategy for the <i>Bulletin of the Atomic Scientists</i>	\$25,000
<i>Council on Economic Priorities</i> , toward a conference on arms control verification and compliance	\$15,000

University of California, San Diego

\$250,000

In 1985, representatives of the Corporation met with officials of the Soviet Academy of Sciences in Moscow to discuss the application of computers in early elementary education. Both nations seek ways to exploit the potential benefits for classroom teaching offered by new information technologies. Collaborative research projects could draw constructively on the strengths that each side brings to the problem, while setting an example of the potential benefits of cooperation between the two societies. Since 1985 the Corporation has made several grants to various American institutions participating in the early phases of the U.S.-Soviet exchange. In cooperation with their Soviet counterparts, they have now devised a research plan focusing especially on the teaching of higher level skills and complex subjects to younger children. This one-year grant is funding implementation of the research and exchange program, coordinated on the American side by Michael Cole, director of the Laboratory of Comparative Human Cognition at the University of California, San Diego.

Discretionary Grants

<i>The RAND Corporation</i> , for a conference for younger scholars on prospects for change in the Soviet Union	\$17,475
<i>Dwight D. Eisenhower World Affairs Institute</i> , toward a program on the history and future of U.S.-Soviet exchanges	\$15,000



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## Special Projects

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The grants described as special projects support exploration of ideas that fall outside the foundation's four current programs and projects related to but broader than specific program priorities. Some of these are special Corporation-initiated activities, some are projects identified with previous grant programs, and some are projects that promote the foundation's long-standing interest in strengthening the nonprofit sector.

### *Strengthening democratic institutions*

#### **Carnegie Commission on Science, Technology, and Government**

**\$500,000\***

This seven-month grant is being used to establish the Carnegie Commission on Science, Technology, and Government, which will assess the mechanisms by which the federal government and the states incorporate scientific and technological knowledge into policy and administrative decision making. The 22-member commission, cochaired by Joshua Lederberg, president of The Rockefeller University, and William T. Golden, president of the New York Academy of Sciences, includes prominent scientists, educators, journalists, attorneys, and political and business leaders. It is spending two to three years determining measures that can be taken by the executive, legislative, and judicial branches of government to interact more effectively with the scientific community. The commission is organizing studies and issuing interim reports. It will make its final recommendations in about three years, with a two-year follow-up period devoted to dissemination and implementation. David Z. Robinson, former executive vice president and treasurer of the Corporation, is executive director.

#### **NAACP Legal Defense and Educational Fund**

**\$275,000**

In 1968 the Kerner Commission declared that two societies, one black and one white, coexisted in the United States, with blacks having unequal status. Twenty years later the status of black Americans has in some respects improved, but in others it has deteriorated. One-third of the U.S. black population has entered the middle class; the number of blacks living in poverty, however, has grown by almost 25 percent. This 11-month grant builds on a previous Corporation grant enabling

*\*Administered by officers of the Corporation.*

the Poverty and Justice Program of the NAACP Legal Defense and Educational Fund to commission a nationwide survey of racial attitudes by Louis Harris and Associates. The firm is interviewing representative samplings of Americans across major ethnic, economic, and religious divisions in an attempt to produce a detailed portrait of current racial attitudes in this country. The information will help the fund, as well as other organizations concerned with racial equity, determine whether racial attitudes have changed since 1968 and decide which racial issues to emphasize and how new substantive rights for blacks and other minorities can be most effectively pursued.

**National Puerto Rican Coalition**

**\$250,000**

The social and economic status of Puerto Ricans living in the United States has declined over the past 20 years. In an effort to reverse that trend, the National Puerto Rican Coalition was formed in 1982 with Corporation support. The coalition, a national association of 63 nonprofit organizations, is a leading advocacy organization for the Puerto Rican community, defending Puerto Rican interests in jobs, housing, and welfare reform as well as promoting legislation that addresses the needs of Puerto Ricans. With this three-year grant the Corporation joins the Ford Foundation in supporting expansion of the coalition’s programs. The coalition will engage in research on both new and existing projects to improve the situation of Puerto Ricans in the U.S. It will, further, educate government and the general public about the declining condition of the Puerto Rican community; work with local organizations to foster specific community and economic programs; and collaborate with the U.S. Department of Housing and Urban Development to provide training and technical assistance for the implementation of those programs. The coalition’s president, Louis Nunez, is being assisted in this effort by vice president Ramon Daubon.

**American Civil Liberties Union Foundation**

**\$200,000**

The Voting Rights Act of 1965 eliminated literacy tests and poll taxes. In 1982 the act was strengthened and extended. An amendment to Section 2 extended the act’s prohibition of discriminatory voting practices or procedures by allowing voting systems to be challenged on the grounds of discriminatory results without requiring proof of discriminatory intent. An amendment to Section 5 extended for a 25-year period the requirement that certain states and localities prove to federal authorities in advance that any proposed changes in voting laws or procedures are not discriminatory. Since 1983 the Corporation has supported the Southern Regional Office of the American Civil Liberties Union (ACLU) Foundation in its efforts to educate the public about the expanded Voting Rights Act and to ascertain that the rights guaranteed by the act are not infringed. With this two-year grant the ACLU’s regional office is inaugurating training programs in North Carolina, South Carolina, and Louisiana for community leaders who are in the process of bringing suit against alleged violators of the Voting Rights Act.

## Lawyers' Committee for Civil Rights Under Law

\$200,000

The Lawyers' Committee for Civil Rights Under Law, based in Washington, D.C., works to expand participation of minority citizens in the electoral process through litigation, monitoring, and education. This two-year grant is enabling the Lawyers' Committee to litigate pending cases of voter discrimination in over a half dozen American cities and to challenge the widespread system of at-large election of state court judges, which may contribute to the low numbers of black judges in some states. The committee is continuing its monitoring of the federal Justice Department's enforcement practices, and laying groundwork for the provision of technical assistance and legal advice to grass roots organizations prepared to fight any discriminatory redistricting that may result from the 1990 census. The committee is also funded by the Ford and Rockefeller foundations.

## National Public Radio

\$200,000

With this six-month grant the Corporation joined the John D. and Catherine T. MacArthur Foundation in supporting National Public Radio's (NPR) coverage of the 1988 presidential campaign. NPR is the production and distribution center for the public radio network of 343 public radio stations located throughout the 50 states. Its daily news programs, *Morning Edition* and *All Things Considered*, together with *Weekend Edition*, provide a total of 35 hours per week of news and information, feature stories, and in-depth analysis of current events to an audience of approximately 7,000,000. Early in the 1988 campaign, NPR conducted candidate profiles, reported on key issues and candidate positions, and aired the stump speeches of each of the 13 candidates. Every state primary and caucus received special coverage, as did both parties' conventions and candidate races, the post-convention debates, and the election.

## People for the American Way

\$100,000

The percentage of eligible American citizens who do not vote is now higher than in any other democracy. Current voter turnout is estimated at 53 percent for presidential elections and is considerably lower for mid-term and local contests. People for the American Way was founded in 1980 and has since become an important public educator on constitutional issues. With this one-year grant, the organization is initiating a number of projects designed to extend voter outreach and education into nonelection years. It is producing reports and a monograph examining the reasons why Americans do not vote; organizing a national speakers' bureau to discuss the issue at public meetings and on public affairs programs; and producing educational materials for use in schools and the workplace. It is also providing the public education component of a national campaign by a coalition of public interest groups to promote voter registration reform and distributing information on media outreach to local voter registration groups. Funding is also provided by the Ford and the George Gund foundations.



University of Michigan

\$70,000

Four years ago the Corporation funded the *National Black Election Study: 1984*, an in-depth study of the attitudes, sentiments, and preferences of the black electorate in the United States. This one-year grant is helping James S. Jackson, professor of psychology at the University of Michigan, undertake a second such study, which will both follow up and expand upon the original. He will attempt to interview again all 1,150 respondents to the 1984 study and to determine whether and how individuals' perceptions, attitudes, and behavior have shifted in the intervening four years. Jackson and his staff are being advised by a national board that includes former Congresswoman Shirley Chisholm, Charles V. Hamilton, Wallace S. Sayre Professor of Government at Columbia University, and Milton Morris, director of research at the Joint Center for Political Studies. The results of the study will be published and disseminated, and the data deposited in archives at the Inter-University Consortium for Political and Social Research.

National Commission on the Public Service

\$50,000

The United States government is having increasing difficulty attracting and retaining capable persons in civil service at all levels, and in all branches. Many factors are responsible, including salary levels, criticism by the public and press, and ceilings on the levels of responsibility to which federal workers can aspire, despite their training and experience. In response to this situation, the 36-member national Commission on the Public Service was established in 1987 under the chairmanship of Paul A. Volcker, former chairman of the Federal Reserve Board. It includes present and former legislators, university presidents, business executives, and others. This 16-month grant is helping the commission produce a detailed report on the current state of civil service, with recommendations for change. It has divided into five task forces focusing on the following: pay and compensation; education and training; recruitment and retention; political appointees and the career services; and public perceptions of the career services. Upon completion of the report, the commission will meet to discuss plans for implementation, including a possible meeting with President Bush.

Discretionary Grants

<i>Center for Excellence in Government</i> , toward a project to identify the skills required for key executive positions in the U.S. government	\$25,000
<i>Joint Center for Political Studies</i> , toward a national leadership conference of black elected and appointed officials	\$25,000
<i>Joint Center for Political Studies</i> , toward a workshop on statistical adjustment methodology and the 1990 census	\$25,000

<i>NAACP Legal Defense and Educational Fund</i> , for planning a national survey of public attitudes on race relations	\$25,000
<i>National Humanities Center</i> , toward radio programs on the civil rights movement	\$25,000
<i>Phelps-Stokes Fund</i> , toward planning research by the New York State Judicial Commission on Minorities on biases in the court system	\$25,000
<i>Toward a More Perfect Union</i> , toward a conference on the Constitution and Bill of Rights	\$25,000

Conflict resolution

<b>Duke University</b>	<b>\$350,000</b>
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Central America has been affected by war and economic depression for almost ten years. This one-year grant is supporting Duke University’s Center for International Development in its role as the secretariat for the International Commission on Central American Economic Recovery and Development. The commission aims to develop an agenda for Central American recovery combining internal policy reform with integrated and coordinated assistance from other nations. Cochaired by Arthur Levitt, Jr., chairman of the American Stock Exchange, and Sonia Picado, executive director of the Inter-American Institute for Human Rights in Costa Rica, the commission is made up of 46 Latin American, North American, European, and Japanese members from business, academia, labor, and nonprofit organizations. The research and coordination staff, headed by William Ascher, a political scientist and codirector of the Center for International Development Research, is preparing brief papers synthesizing existing knowledge of economic development efforts in Central America, drawing lessons from previous experience, and preparing other analyses.

**Discretionary Grants**

<i>Emory University</i> , toward planning by the Carter Presidential Center for an international negotiations network	\$25,000
<i>Woodrow Wilson International Center for Scholars</i> , toward planning a program in conflict management and resolution	\$25,000

Philanthropy and nonprofit institutions

<b>Independent Sector</b>	<b>\$150,000</b>
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The Independent Sector is a membership organization of nonprofit institutions founded in 1980 to inform government and the general public about the nonprofit sector and to encourage giving, volunteering, and not-for-profit initiatives. Now

representing over 650 organizations, the Independent Sector has launched a project titled “Daring Goals for a Caring Society.” With this five-year grant, the Corporation joins a number of other donors in helping to support the Daring Goals project. Daring Goals seeks to double American contributions of funds and manhours by 1991, urging individuals to give 5 percent of their income and five hours a week to causes they care about. The campaign is being directed primarily at middle- and upper-income individuals, who contribute proportionately less than do those with incomes under \$5,000. Member organizations and community coalitions across the country are being enlisted to help promote the project’s aims. Eugene C. Dorsey, head of the Gannett Foundation and chair of the project, is chair of the national “Give Five” campaign. The project also seeks to help nonprofit organizations improve their ability to attract and hold volunteers. It helps create training programs and calls attention to exemplary programs for using volunteers.

Discretionary Grants

<i>Facing History and Ourselves National Foundation</i> , toward development and dissemination of a school curriculum on voluntarism and the non-profit sector	\$25,000
<i>Council on Foundations</i> , toward 1988 membership support	\$24,700
<i>National Committee for Responsive Philanthropy</i> , toward support	\$10,000
<i>Independent Sector</i> , toward 1988 membership support	\$7,400
<i>New York Regional Association of Grantmakers</i> , toward 1988 membership support	\$7,125
<i>Nonprofit Coordinating Committee of New York</i> , toward 1988 membership support	\$975

Other

<b>Consortium for the Advancement of Private Higher Education</b>	<b>\$550,000</b>
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The Consortium for the Advancement of Private Higher Education (CAPHE), headed by Michael T. O’Keefe, began as a joint venture between the Corporation and other funders. It is aimed at providing technical and financial assistance to independent colleges and universities developing and testing model solutions to major institutional problems. Since it began operation in 1984, CAPHE has offered grants and technical assistance to colleges and universities in four subject areas: strategic planning, market analysis, curriculum development, and faculty development. It has also undertaken a number of special projects, including work with five historically black colleges on strategic planning, help to a selected group of colleges in measuring student educational “outcomes,” and establishment of a corporation for development of real estate owned by smaller private colleges. This grant is helping support CAPHE’s program for the coming year.



*Education Week*, a nonprofit weekly newspaper published by Editorial Projects in Education, provides information, analysis, and commentary concerning the reform movement and other developments in American education. Marketing plans implemented with Corporation support have raised *Education Week's* circulation from 8,000 in 1983 to 50,000 this year. The newspaper has yet, however, to reach teachers themselves. Only 5,000 of the nation's 2.2 million teachers currently subscribe. This two-year grant is helping *Education Week's* publisher, Ron Wolk, implement a new readership drive with the assistance of publishing consultant Lawrence A. Durocher. Because earlier campaigns aimed directly at teachers were not successful, this new strategy centers on school libraries, which can provide the publication to teachers who do not choose to subscribe themselves. A pilot marketing test involving 1,000 school libraries is now under way. If the results prove encouraging, the remainder of the grant will be used to promote *Education Week* to an additional 13,640 school libraries. The project's ultimate goal is to reach libraries in all 80,000 U.S. public schools.

Academy for Educational Development

\$237,200

The Corporation-sponsored Aging Society Project concluded in its final report that increased longevity has created a new period of productive time in the period roughly between ages 50 and 75. D. Lydia Brontë, who coedited with Alan Pifer the project's major publication, *Our Aging Society*, is using this 15-month grant to produce a book-length study of work patterns among people in this age group. Written for a broad readership, the book will focus on a number of developments including career changes, which are more prevalent among people who spend many years in the workforce; on programs to assist people in making these changes; and on the potential conflicts between workers who want to stay on the job into their sixties and seventies and employers encouraging early retirement. Brontë's book will feature case studies of experiments that assist employers and employees in changing workforce practices and career patterns and will describe the effects of these programs. It will conclude with proposals for public and private policies aimed at accommodating a vigorous, long-lived population.

Discretionary Grants

<i>Editorial Projects in Education</i> , for a marketing plan to increase readership by public school teachers of <i>Education Week</i>	\$25,000
<i>Environmental Policy Institute</i> , toward a project to define important environmental problems and innovative solutions to them	\$25,000
<i>Leakey Foundation</i> , toward symposia on endangered populations	\$25,000
<i>National Academy of Social Insurance</i> , for research and writing on social insurance, welfare, and health by Robert M. Ball	\$25,000

<i>National Association of College and University Business Officers, toward establishment of a task force on college retirement issues</i>	\$25,000
<i>Goucher College, for the Public Leadership Education Network</i>	\$20,000
<i>University of Nebraska at Omaha, toward development of a traveling exhibition on Andrew Carnegie and his library gifts</i>	\$10,000
<i>New York Academy of Sciences, toward meetings on science policy</i>	\$4,000

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# *Publications and Nonprint Materials Resulting from Grants*

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The following print and nonprint materials resulting from projects funded wholly or in part by Carnegie Corporation were produced in 1987-88. The list does not include papers published in scientific professional journals; nor does it include newspaper and magazine articles.

## *Education: Science, technology, and the economy*

*1988 Triangle Coalition Local Directory*, edited by Gregory L. Crosby, Lauren A. Williams, Jane M. Ponton, and April L. Gower (Triangle Coalition for Science and Technology Education)

*American Education: The Metropolitan Experience, 1876-1980*, by Lawrence A. Cremin (Harper & Row, Inc.)

*The Broken Web: The Educational Experience of Hispanic American Women*, edited by Teresa McKenna and Flora Ida Ortiz (Tomás Rivera Center and Floricanto Press)

*Cities and their Vital Systems: Infrastructure Past, Present and Future*, edited by Jesse H. Ausubel and Robert Herman (National Academy Press)

*Emerging Syntheses in Science*, edited by David Pines (Addison-Wesley Publishing Company)

*Future Stakes*, a series of four radio programs produced by "Soundings" (National Humanities Center):

*American Memory*, with Lynne V. Cheney and Charles Blitzer

*Classroom Laboratories*, with Shirley Malcom and James Rutherford

*Education and the National Economy*, with James B. Hunt, Jr., and Ray Marshall

*Teaching Standards*, with Sonia Hernandez and James A. Kelly

*Great Explorations in Mathematics and Science (GEMS) Project* (Lawrence Hall of Science, University of California, Berkeley):

*Convection, a Current Event: Teacher's Guide*, by Alan Gould

*More Than Magnifiers: Teacher's Guide*, by Cary I. Sneider



*Recruiting Minority Classroom Teachers: A National Challenge*, by Denise A. Alston (National Governors' Association)

*Restructuring the Education System: Agenda for the 1990s*, by Michael Cohen (National Governors' Association)

*Teaching in America: The Possible Renaissance* (Education Commission of the States):

*A Profession at Risk*, by Terry K. Dozier

*The Future of the Teaching Profession: Dialogue and Debate*, edited by Shirley Wells, Rexford Brown, Robert Palaich, and Sherry Freeland Walker

*New Directions for State Teacher Policies*, edited by Judith L. Bray, Patricia Flakus-Osqueda, Robert M. Palaich, and JoAnne S. Wilkins

*Talk with Us, Work with Us*

*What Next? More Leverage for Teachers*, edited by Joslyn Green

*This Year in School Science, 1988 — Science Teaching: Making the System Work*, by Audrey B. Champagne (American Association for the Advancement of Science)

*Toward healthy child development: The prevention of damage to children*

*Addressing the Problem of Adolescent Pregnancy: The State of the Art and Art in the State; Adolescent Pregnancy and Childbearing: Trends, Causes, and Consequences; and An Agenda for State Action: How to Develop and Implement Adolescent Pregnancy Initiatives at the State and Local Level*, by Madeleine H. Kimmich (National Governors' Association)

*Adolescent and Young Fathers: Problems and Solutions*, by Gina Adams and Karen Pittman (Adolescent Pregnancy Prevention Clearinghouse)

*Adolescent Literacy: What Works and Why*, by Judith Davidson and David Garland (Garland Publishing, Inc.)

*Adolescent Male Responsibility: A Program Development Guide, and Network News on Adolescent Male Responsibility, Pregnancy Program and Responsibility*, by Ed Pitt (National Urban League)

*Adolescent Pregnancy in the South* (Southern Governors' Association)

*Child Care Selection Checklist: A Guide for Parents* (National Black Child Development Institute)

*Diversity: An Approach to Child Care Delivery*, by Karen Hill-Scott (National Black Child Development Institute)

*Don't Make a Baby if You Can't Be a Father*, a videotape by Ed Pitt (National Urban League)

*The ECS Survey of State Initiatives for Youth at Risk* (Education Commission of the States):

*Community of Purpose: Promoting Collaboration Through Dropout Prevention*, by Lucie Isenhardt and Sue Bechard

*Early Intervention Efforts*, by Tim Cowhick

*Family Diversity and School Policy*, by Barbara Lindner

*Higher Education Outreach*, by Ruth Rosauer

*Parental Involvement in Education*, by Barbara Lindner

*Renewing Urban Schools: The Community Connection*, by Rona Wilensky and D.M. Kline III

*State Action*, by Esther Rodriguez, Patrick McQuaid, and Ruth Rosauer

*Statewide Task Forces and Commissions*, by Esther Rodriguez and Sandra Anderson

*Strategies for Financing State Dropout Programs*, by Joel D. Sherman

*Substance Abuse*, by Kim R. Moyer

*Teen Pregnancy*, by Ruth Rosauer

*Youth Employment and Career Education*, by Patty Flakus-Mosqueda

*Youth Suicide—The Schools Respond*, by Catherine Schuster

*Giving your Child a Good Start in School*, by Carol Phillips (National Black Child Development Institute)

*Project SPIRIT*, a videotape overview of the project, and two training videotapes: *Project SPIRIT: Getting Started*, and *Project SPIRIT: Where it Really Happens*, Congress of National Black Churches, Black Family Program (National Technical Resource and Training Center)

*Putting the Boys in the Picture: A Review of Programs to Promote Sexual Responsibility Among Young Males*, by Joy G. Dryfoos (Network Publications/ETR Associates)

*School Success for Students at Risk*, Council of Chief State School Officers (Harcourt Brace Jovanovich, Inc.)

*School-Based Clinics, 1988 Update*, by Sharon Lovick and Renee Stern (Center for Population Options)

*School-Based Health Clinics: Legal Issues*, by Abigail English and Lillian Tereszkievicz (National Center for Youth Law and Center for Population Options)

*Within Our Reach: Breaking the Cycle of Disadvantage*, by Lisbeth B. Schorr with Daniel Schorr (Anchor Press/Doubleday)

*Strengthening human resources in developing countries*

*Adult Learning: A Student Workbook*, by Hester van der Walt (Centre for Adult and Continuing Education, University of the Western Cape)

*American Philanthropy: A Guide for South Africans*, by Michael Sinclair and Julia Weinstein (Investor Responsibility Research Center)

*Contextual Studies for Adult Educators in the Western Cape, Book One*, by Anne Mager (Centre for Adult and Continuing Education, University of the Western Cape)

*Development Alternatives: The Challenge for NGOs*, edited by Anne Gordon Drabek (Pergamon Press)

*Law and Justice in South Africa*, edited by John Hund (Centre For Intergroup Studies)

*People's Education: An Examination of the Concept*, by Glenda Kruss, and *What is People's Education? An Approach to Running Workshops*, by Joe Samuels and Glenda Kruss (Centre for Adult and Continuing Education, University of the Western Cape)

*Avoiding nuclear war*

*Building Confidence During Peace and War*, by Alan J. Vick (RAND Corporation)

*Cambridge Forum*, a series of 10 radio broadcasts (Cambridge Forum on Avoiding Nuclear War):

*A Breakthrough in Soviet Thinking*, by Andrei Melville

*Is Nuclear Weapons Testing Necessary?* by Jack Ruina

*Is the USSR Really Changing?* by Marshall Shulman

*Neither Mad nor Starstruck*, by George Rathjens

*Nuclear Crash: Nuclear War's Effects*, by Kosta Tsipis

*The Red Button: Command of Nuclear Arsenals*, by Ashton Carter

*Report from Moscow*, by International Physicians for the Prevention of Nuclear War

*Sakharov and Nuclear Arms Control*, by Jerome Wiesner

*SDI: Cruel Hoax or Moral Imperative?* by Albert Carnesale

*Who Needs the A.B.M. Treaty?* by Antonia Chayes



*China Builds the Bomb*, by John Wilson Lewis and Xue Litai (Stanford University Press)

*Compliance and the Future of Arms Control*, a report of a project sponsored by the Center for International Security and Arms Control, Stanford University, and Global Outlook, by Gloria Duffy, Gregory Dalton, Matthew State, and Leo Sartori (Ballinger Publishing Company)

*Crisis Management in the Nuclear Age*, by Lynn Rusten and Paul C. Stern (National Academy Press)

*Crisis Stability and Nuclear War*, edited by Kurt Gottfried and Bruce G. Blair (Oxford University Press)

*Fateful Visions: Avoiding Nuclear Catastrophe*, edited by Joseph S. Nye, Jr., Graham T. Allison, and Albert Carnesale (Ballinger Publishing Company)

*Fear of Cheating, Fear of Spying*, a video produced and directed by Richard A. Scribner, with accompanying guide prepared by Richard A. Scribner and Shelley Alpern (Program on Science, Arms Control, and National Security, American Association for the Advancement of Science)

*Getting Together: Building a Relationship that Gets to Yes*, by Roger Fisher and Scott Brown (Houghton Mifflin Company)

*Lost in Space: The Domestic Politics of the Strategic Defense Initiative*, edited by Gerald M. Steinberg (Lexington Books, D.C. Heath and Company)

*Minds at War: Nuclear Reality and the Inner Conflicts of Defense Policymakers*, by Stephen Kull (Basic Books, Inc.)

*The Public, the Soviets, and Nuclear Arms — U.S.-Soviet Relations in the Year 2010: Americans Look to the Future*, by John Doble, with Richard Smoke and Jean Johnson, accompanied by two companion volumes: *Ballot Results*, by Judith Kallick, and *Technical Appendix*, by Stephen Immerwahr (Public Agenda Foundation)

*Strategic Arms Reductions*, by Michael M. May, George F. Bing, and John D. Steinbruner (The Brookings Institution)

*The Undeclared Bomb*, by Leonard S. Spector (Ballinger Publishing Company)

*Verification and Compliance: A Problem-Solving Approach*, edited by Michael Krepon and Mary Umberger (Macmillan Press)

*Western Approaches to the Soviet Union*, by Gregory Treverton, Pierre Hassner, Edwina Moreton, and Stanley Hoffman, edited by Michael Mandelbaum (Council on Foreign Relations)

*Democracy and the Welfare State*, edited by Amy Gutmann (Princeton University Press)

*Foundations: The People and the Money*, a videotape produced by the Foundation Center (Karol Media)

*Leadership Papers*, by John W. Gardner (Independent Sector):

# 5 *The Moral Aspect of Leadership*

# 6 *Attributes and Context*

# 7 *Leadership Development*

# 8 *Constituents and Followers*

*The Librarian's Video Primer: Establishing and Maintaining Your Video Collection and Fast Forward: Libraries and the Video Revolution*, edited by Sally Mason (American Library Association Video)

*The Politics of Social Policy in the United States*, edited by Margaret Weir, Ann Shola Orloff, and Theda Skocpol (Princeton University Press)

*Promoting Voting: A Citizen's Guide to Media* (American Citizenship Education Project)





*Report on  
Finance and  
Administration*





# Report of the Treasurer

The annual financial statements and additional financial tabulations for Carnegie Corporation of New York appear on pages 106 through 149. The following comments and data supplement that information.

## Investments

On September 30, 1988, the market value of the Corporation's investments was \$800.4 million, compared with \$806.3 million on September 30, 1987, and \$284.5 million on September 30, 1978. This is an increase of 181.3 percent in ten years. Adjusted for inflation, and after allowing for expenditures, the increase over the last ten years has been 5.5 percent compounded annually. During this period, the trustees authorized \$259.1 million for grants, administrative expenses, and federal taxes.

The Corporation's principal investment objective is to achieve long-term total return, consisting of capital appreciation as well as dividend and interest income, sufficient to maintain the purchasing power of the endowment while continuing to support the programs of the Corporation. To monitor performance in connection with this objective, monthly and annual indices of total return of 4.7 percent for the fiscal year ended September 30, 1988. The annual rate of return over the last ten years has been 16.5 percent, compounded annually. In terms of dollars of constant purchasing power, the total return over the last ten years has been 10.0 percent, compounded annually.

The table below shows the composition of investment assets on September 30, 1988.

<i>Investment assets on September 30, 1988</i>			
	Market value	Percent of total	Prior year percent of total
Equities			
Common stocks	\$241,130,268	30.1	34.6
Convertible securities	8,556,552	1.1	.9
Fixed income securities			
Short term	123,392,945	15.4	14.0
Other	273,670,136	34.2	41.5
Limited partnerships	138,476,603	17.3	7.1
Other	15,190,120	1.9	1.9
	<u>\$800,416,624</u>	<u>100.0</u>	<u>100.0</u>



The Corporation's trustees delegate investment decisions to investment managers who operate within investment policies and standards set by the trustees. Eighty percent of the funds are managed by three core managers who may invest in both fixed income securities and equities, domestic and international. The remaining 20 percent of the funds are invested by managers who specialize in particular types of investments — special equities, venture capital, and real estate. The finance and administration committee of the board of trustees meets periodically with the core managers.

In February 1987, the committee requested the core managers to reduce the percentage of assets held in equities to less than 40 percent and to limit the sensitivity of the fixed income portion of the portfolio to interest rate fluctuations by reducing its average maturity of those securities. During the year the restriction on sensitivity was lifted, and the equity limit was removed in November 1988. The impact of these changes on portfolio composition is shown in the table above.

During the 1985 fiscal year, the Corporation authorized its managers to invest in foreign securities, with the objective of enhancing the overall rate of investment return. On September 30, 1988, approximately 10.9 percent of the Corporation's investment assets was invested in foreign securities and currencies.

While delegating authority for individual investment decisions to outside managers, the trustees retain ultimate responsibility for investment policy, including policy relating to the public responsibilities of the corporations represented in the investment portfolio.

### **Fixed assets**

During this fiscal year the Corporation adopted a capitalization policy for purchases of fixed assets. Fixed assets include leasehold improvements, furniture, and equipment. Furniture and equipment is depreciated when placed in service, based on useful life. Leasehold improvements will be amortized when placed in service, over the remaining life of the lease.

### **Income**

The gross income from investments for the year ended September 30, 1988, was \$47,320,113, compared with \$39,504,470 the preceding year. Investment expenditures, consisting primarily of asset management fees, amounted to \$2,318,143 in the fiscal year ended September 30, 1988, versus \$2,251,488 a year earlier. Net investment income, when combined with other income, produced total income of \$45,022,714.

### **Appropriations and expenditures**

Each year, the trustees appropriate funds to be used for grants and for projects administered by the officers. Because many of these grants involve multi-year commitments, about one-half of the appropriated funds are spent in years subsequent to the fiscal year in which the original appropriation is made. A total of \$38,962,943 was appropriated in the fiscal year ended September 30, 1988.

Any balance held by a grantee after a project has been completed or terminated is refunded to the Corporation: If the balance has not been distributed to the

grantee, it is cancelled by the Corporation. Refunds and cancellations are listed on page 149 as adjustments of appropriations. For the year ended September 30, 1988, they totaled \$225,852. Net appropriations, therefore, were \$38,737,091. A complete list of grants and other appropriations is shown on pages 112 to 149.

The general administration and program management expenditures were \$4,533,500 in the fiscal year ended September 30, 1988, compared with \$4,182,360 in the previous fiscal year. A substantial portion of staff activities (\$1,289,280) was spent for "direct charitable activities." These activities constitute services provided directly to other exempt organizations, governmental bodies, or the general public. Examples of such services are the provision of technical assistance to grantees and potential grantees; the conduct of educational conferences; research; the publication and dissemination of educational materials; and service on boards of other charitable organizations or public commissions.

The schedule below shows a breakdown of total expenditures into general administration and program management, investment expenditures, and direct charitable activities expenditures.

Schedule of general administration and program management, investment expenditures, and direct charitable activities expenditures for the year ended September 30, 1988.

	General administration and program management	Investment expenditures	Direct charitable activities expenditures	Total
Salaries	\$2,233,841	\$ 133,695	\$ 553,233	\$2,920,769
Investment advisory and custody fees	—	2,050,310	—	2,050,310
Employee benefits	751,135	44,994	169,046	965,175
Rent	507,625	30,951	117,173	655,749
Quarterly and annual reports	57,420	—	234,887	292,307
Travel	200,746	900	62,529	264,175
Consultants	126,831	—	51,582	178,413
Postage, telephone and messenger services	128,076	7,806	29,507	165,389
Conferences and meetings	122,039	1,481	22,359	145,879
Trustees' honoraria and expenses	134,717	6,556	—	141,273
Computer equipment and services	35,318	6,643	9,045	51,006
Office equipment, supplies, and service	68,782	4,502	16,913	90,197
Legal and accounting services	44,978	25,997	7,503	78,478
Insurance	45,772	—	—	45,772
Copying and duplicating	29,661	1,805	6,783	38,249
Books and periodicals	27,064	1,647	6,189	34,900
Membership fees and association dues	10,041	613	2,325	12,979
Depreciation	4,747	—	—	4,747
Miscellaneous	4,707	243	206	5,156
Total	<u>\$4,533,500</u>	<u>\$2,318,143</u>	<u>\$1,289,280</u>	<u>\$8,140,923*</u>

\*Total expenditures in 1987 were \$7,397,316, which included \$2,251,488 of investment expenditures and \$963,468 of direct charitable activities expenditures.

Under the provisions of the Tax Reform Act of 1969, Carnegie Corporation and other private foundations are subject to a federal excise tax of 2 percent on income and realized capital gains. However, under the Tax Reform Act of 1984, the rate is reduced to 1 percent if the foundation maintains its average expenditure rate of the previous five years and, in addition, spends the savings—1 percent of income and realized capital gains. With the help of increased program appropriations, the Corporation qualified for the reduced rate in fiscal year 1988. The tax savings are estimated to be \$.8 million. In accordance with the provisions of the Tax Reform Act of 1984, the Corporation has paid estimated taxes. Prepaid taxes, representing the excess of estimated taxes over the taxes due, are carried as an asset. Taxes on investment income are charged to general administration, and taxes on realized capital gains are charged to the principal fund. The balance sheet on page 106 shows a deferred tax liability of \$1,044,004, representing the potential tax (at 2 percent) on gains as yet unrealized.

### Ten-year financial summary

The table below sets forth the growth of investment assets, income, appropriations, and other expenditures over the ten fiscal years ended September 30, 1988. The significant rise in the market value of investment assets over the past five fiscal years has provided the basis for a large increase in appropriations in fiscal years 1984 through 1988.

*Ten-year financial summary (in thousands)*

Fiscal year ended September 30	Market value of investments at year end	Net investment income	Appropriations for grants and projects —net	Other expenditures*
1988	\$800,417	\$45,023	\$38,737	\$6,249
1987	806,296	37,273	39,432	5,596
1986	713,489	34,505	28,686	5,132
1985	564,385	34,966	26,134	5,085
1984	503,943	30,986	19,535	4,231
1983	515,709	27,170	13,231	3,291
1982	380,699	21,875	14,342	3,596
1981	334,999	17,149	12,146	3,075
1980	345,502	18,586	11,464	2,704
1979	294,487	18,614	12,226	2,504

*\*Includes direct charitable activities; excludes investment expenses and depreciation.*

### Audit by independent accountants

The bylaws provide that the Corporation’s accounts are to be audited each year by an independent public accountant. Accordingly, the firm of Peat Marwick Main & Co. audited the Corporation’s financial statements for the fiscal year ended September 30, 1988. The Corporation’s financial statements and related schedules, together with the auditors’ report, appear on the following pages.



**Independent  
auditors' report**

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The Board of Trustees  
Carnegie Corporation of New York:

We have audited the accompanying balance sheets of Carnegie Corporation of New York as of September 30, 1988 and 1987, and the related statements of changes in fund balances for the years then ended. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Carnegie Corporation of New York at September 30, 1988 and 1987, and the changes in its fund balances for the years then ended in conformity with generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in the schedule on pages 111 to 149 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly presented in all material respects in relation to the basic financial statements taken as a whole.

Peat Marwick Main & Co.

New York, New York  
December 9, 1988

## Balance sheets

September 30, 1988 and 1987

	1988	1987
<b>Assets</b>		
Investments, at market		
Equities	\$249,686,820	\$286,655,683
Fixed income	397,063,081	447,238,352
Limited partnership interests	138,476,603	57,001,848
Other	<u>15,190,120</u>	<u>15,400,105</u>
	800,416,624	806,295,988
Cash	943,630	458,103
Prepaid Taxes	188,629	3,747
Program-related investments—note 2	379,161	384,411
Fixed Assets—note 6	<u>1,476,638</u>	<u>—</u>
Total assets	<u>\$803,404,682</u>	<u>\$807,142,249</u>
<b>Liabilities and fund balances</b>		
Liabilities		
Unpaid appropriations	29,325,088	\$27,382,890
Taxes payable—note 3		
Current	—	1,615,802
Deferred	1,044,004	1,702,122
Checks outstanding in excess of bank balances	<u>—</u>	<u>865,253</u>
Total liabilities	<u>30,369,092</u>	<u>31,566,067</u>
Fund balances		
Income	—	—
Principal	<u>773,035,590</u>	<u>775,576,182</u>
Total fund balances	<u>773,035,590</u>	<u>775,576,182</u>
Total liabilities and fund balances	<u>\$803,404,682</u>	<u>\$807,142,249</u>

See accompanying notes to financial statements.

**Statements of changes in fund balances**  
*for the years ended September 30, 1988 and 1987*

<b>Income fund</b>	<b>1988</b>	<b>1987</b>
<b>Income</b>		
Investment income	\$47,320,113	\$39,504,470
Less investment expenditures	<u>2,318,143</u>	<u>2,251,488</u>
Net investment income	45,001,970	37,252,982
Other	<u>20,744</u>	<u>19,842</u>
Total income	<u>45,022,714</u>	<u>37,272,824</u>
<b>Expenditures</b>		
Provision for taxes—note 3	436,247	389,417
General administration, program management, and direct charitable activities—notes 4, 5 & 6	5,822,780	5,145,828
Grant appropriations (net of refunds and cancellations of \$224,058 in 1988 and \$59,132 in 1987)	37,958,885	37,039,846
Appropriations for projects administered by the officers (net of refunds and cancellations of \$1,794 in 1988)	778,206	2,417,610
Provision for losses and write-offs of program-related investments—note 2	<u>(5,250)</u>	<u>60,966</u>
Total expenditures	<u>44,990,868</u>	<u>45,053,667</u>
Excess of income over expenditures	31,846	(7,780,843)
Transfer (to) from principal fund	<u>\$ (31,846)</u>	<u>\$ 7,780,843</u>

*See accompanying notes to financial statements.*



**Statements of changes in fund balances**  
*for the years ended September 30, 1988 and 1987*

<b>Principal fund</b>	<b>1988</b>	<b>1987</b>
<b>Expendable:</b>		
Balance at beginning of year	\$640,239,314	\$554,082,291
Additions and deductions		
Net gain on investment transactions	31,788,205	123,371,457
Net realized gain on recovery of reversionary interests	3,235	3,155
Less applicable taxes — note 3	(654,997)	(1,202,197)
Unrealized depreciation of investments net of deferred federal excise tax credit of \$(687,937) in 1988 and \$(576,215) in 1987 — note 3	(33,708,881)	(28,234,549)
Transfer from (to) income fund	31,846	(7,780,843)
Total expendable, end of year — note 1	<u>637,698,722</u>	<u>640,239,314</u>
<b>Nonexpendable (balance at beginning and end of year):</b>		
Endowment	125,000,000	125,000,000
Legacy	<u>10,336,868</u>	<u>10,336,868</u>
Total nonexpendable — note 1	<u>135,336,868</u>	<u>135,336,868</u>
Total principal fund balance	\$773,035,590	\$775,576,182

*See accompanying notes to financial statements.*

## Notes to financial statements

*for the years ended September 30, 1988 and 1987*

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### (1) Summary of significant accounting policies:

The accompanying financial statements have been prepared substantially on the accrual basis of accounting and accordingly reflect all significant receivables and payables. However, investment income is recorded on a cash-collected basis. This exception to the accrual basis of accounting has no material effect on financial position or changes in fund balances.

For the fiscal year ended September 30, 1988, the Corporation has capitalized purchases of fixed assets, including leasehold improvements, furniture, and equipment, including computers. Furniture and equipment is depreciated when placed in services, over its useful life. Leasehold improvements, when placed in service, will be amortized over the remaining life of the lease.

The resources of the Corporation are accounted for in two funds — income and principal. The principal fund consists of nonexpendable and expendable resources. Nonexpendable resources represent the original sums received from Andrew Carnegie who, by the terms of the conveying instrument, stipulated that the principal may never be expended. Expendable resources represent net gains on investment transactions and reversionary interests which are available to support activities in accordance with the provisions of the New York State Not-for-Profit Corporation Law.

### (2) Program related investments:

The Corporation has made investments in loans to nonprofit organizations, the purpose of such investments being to accomplish one or more of the purposes for which the foundation is organized and operated.

Due to the risk involved in these investments, the Corporation estimates the collectability of these amounts to be approximately 50 percent of the remaining loan amount and, accordingly, such investments are presented on the accompanying balance sheets net of allowance for possible losses of \$379,161 in 1988, and \$384,411 in 1987.

### (3) Taxes payable:

The Corporation is liable for federal excise taxes of 2 percent of the net investment income, as defined, which includes realized capital gains for the year. However, this tax is reduced to 1 percent if certain conditions are met. Therefore, current taxes for the years ended September 30, 1988, and 1987, are estimated at 1 percent of net investment income.

Deferred taxes represent 2 percent of unrealized appreciation on investments for the years ended September 30, 1988 and 1987, as qualification for the 1 percent tax is not determinable until the fiscal year in which gains are realized.

The Corporation is also subject to unrelated business income tax, which is calculated based on applicable corporate tax rates.

Tax expense is allocated to the respective funds based on the taxable income generated by the funds.

(4) Retirement plans:

The Corporation purchases annuities for qualifying employees under the terms of a noncontributory, defined contribution retirement plan with Teachers Insurance and Annuity Association and College Retirement Equities Fund. Retirement plan expenses for the years ended September 30, 1988, and 1987, were \$432,684 and \$376,164, respectively.

In addition, the Corporation has established a noncontributory annuity plan to supplement the basic plan described above. This plan is also administered by Teachers Insurance and Annuity Association and College Retirement Equities Fund. The contribution in the fiscal year ended September 30, 1988, to this plan for the plan year beginning January 1, 1987, was \$57,085. It is expected that a similar contribution for the plan year beginning January 1, 1988, will be made in December, 1988.

(5) Lease:

The Corporation has entered into a ten-year sublease agreement to occupy two new floors at its present location at 437 Madison Avenue.

Occupancy of the new space will begin in January 1989. Renovation costs for fiscal year 1988 were \$1.4 million. It is anticipated that an additional \$2.8 million will be spent in fiscal year 1989 for renovation costs.

The first payment of \$95,808 was made in July 1988. Monthly payments do not commence again until February 1, 1989. The Corporation is subject to escalation provisions for real estate taxes, maintenance, and electricity. The following is a schedule of the minimum future lease payments at September 30, 1988:

Minimum future lease payments:

1989	\$ 807,710
1990	1,314,690
1991	1,314,690
1992	1,318,815
1993	1,335,315
1994-1998	<u>5,843,183</u>
	\$11,934,403

Rental expense for 1988 which includes the payment for the new space as well as rent for the space presently occupied was \$612,734. Rental expense for 1987 was \$394,604.

(6) Fixed Assets:

Fixed assets are composed of the following at September 30, 1988:

Lease Improvements	\$1,107,913
Furniture and Equipment	373,472
Less: Accumulated Depreciation	<u>(4,747)</u>
	<u>368,725</u>
Total	\$1,476,638



**Summary of investments held and income from investments\***  
*for the year ended September 30, 1988*

	Tax basis**	Market value	Excess (deficiency) of market value over tax basis	Income
Equities				
Common stocks	\$217,450,714	\$241,130,268	\$23,679,554	\$ 6,840,555
Convertible securities	9,947,341	8,556,552	(1,390,789)	487,971
Fixed income securities				
Short term	122,656,490	123,392,945	736,455	5,199,536
Intermediate and long term	267,415,419	273,670,136	6,254,717	31,477,056
Limited partnership interests	116,105,678	138,476,603	22,370,925	3,162,894
Other	<u>15,190,120</u>	<u>15,190,120</u>	<u>—</u>	<u>152,101</u>
	\$748,765,762	\$800,416,624	\$51,650,862	\$47,320,113

\* A complete listing of securities is available upon written request.  
 \*\* Tax basis is cost, except for limited partnership investments, which are carried at equity.

## Schedule of appropriations and payments

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Academy for Educational Development 680 Fifth Avenue New York, New York 10019 <i>National Adolescent Pregnancy Prevention Program—\$600,000 (1986)</i>		100,000	100,000	
<i>Research and writing by D. Lydia Brontë on policies affecting work and career patterns in the third quarter of life</i>	237,200		223,500	13,700
ACCESS: A Security Information Service 1730 M Street, N.W. Washington, D.C. 20036 <i>Security information service</i>	200,000		100,000	100,000
Action for Children's Television 20 University Road Cambridge, Massachusetts 02138 <i>Projects to improve children's television</i>	20,000		20,000	
Ad Hoc Soviet Research Group for a U.S.-Soviet Project on the Educational Uses of Computers in the Early Elementary Grades Academy of Sciences Moscow, Union of Soviet Socialist Republics <i>Expenses of the project</i>	25,000		5,370	19,630
Adesola, Akin O. University of Lagos Lagos, Nigeria <i>Expenses for lectures, seminars, and informal consultations at United States institutions</i>	23,000		23,000	
Africa Leadership Foundation 310 East 46th Street New York, New York 10017 <i>Inaugural meeting and program planning for the Africa Leadership Forum</i>	25,000		25,000	
African Academy of Sciences P. O. Box 14798 Nairobi, Kenya <i>Establishment of a quarterly journal, networking of African scientific organizations, and program development</i>	250,000		175,000	75,000
African-American Institute 833 United Nations Plaza New York, New York 10017 <i>Program on policy issues in African-American relations</i>	250,000		165,000	85,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<p>African Medical and Research Foundation P.O. Box 30125, Wilson Airport Nairobi, Kenya</p> <p><i>Research and meetings on nonformal health education in eastern and southern Africa — \$416,500 (1986)</i></p> <p><i>Evaluation and Operational Research Unit</i></p>	248,750	147,300	147,300	124,375
<p>Africare 1601 Connecticut Avenue, N.W. Washington, D.C. 20009</p> <p><i>Maternal health and child survival program in Imo State, Nigeria — \$190,900 (1987)</i></p>		55,792	41,388	14,404
<p>Alan Guttmacher Institute 111 Fifth Avenue New York, New York 10003</p> <p><i>National surveys of teachers and education policymakers to assess the current status of human sexuality education</i></p>	303,200		203,200	100,000
<p>Alexandra Health Centre and University Clinic P.O. Box 175 2012 Bergvlei, Republic of South Africa</p> <p><i>Model program of maternal and child health services in urban South Africa — \$65,000 (1987)</i></p>		32,000	32,000	
<p>American Academy of Arts and Sciences 136 Irving Street Cambridge, Massachusetts 02138</p> <p><i>International study of arms control verification issues</i></p> <p><i>Study of the maintenance of an anti-ballistic missile treaty regime</i></p> <p><i>Workshops on conventional force restructuring and arms control</i></p>	25,000 150,000 25,000		25,000 150,000 25,000	
<p>American Association for Higher Education One Dupont Circle Washington, D.C. 20036</p> <p><i>Project to facilitate college and university presidents' leadership in strengthening the profession of teaching</i></p> <p><i>Targeted distribution of a special issue of Change magazine focused on Hispanics in higher education</i></p>	545,000 7,500		62,880 7,500	482,120



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Association for the Advancement of Science 1333 H Street, N.W. Washington, D.C. 20005				
<i>Project to improve science and mathematics education for minority, female, and disabled youth — \$700,000 (1985)</i>	657,000	115,000	115,000 348,500	308,500
<i>Program in Science, Arms Control, and National Security — \$350,000 (1987)</i>		175,000	87,500	87,500
<i>Project on the place of science and technology in undergraduate education — \$570,000 (1987)</i>		246,000	246,000	
<i>Program to strengthen the scientific and the technological infrastructure in sub-Saharan Africa</i>	699,700		284,520	415,180
<i>National project to reformulate the content of elementary and secondary education in science, mathematics, and technology</i>	700,000			700,000
<i>Support of National Forum for School Science</i>	194,000		93,840	100,160
American Civil Liberties Union Foundation 132 West 43rd Street New York, New York 10036				
<i>Center for National Security Studies Project on Government Secrecy — \$150,000 (1987)</i>		75,000	75,000	
<i>Voting Rights Project</i>	200,000		100,000	100,000
American Committee on U.S.-Soviet Relations 109 Eleventh Street, S.E. Washington, D.C. 20003				
<i>Periodic assessments of the state of U.S.-Soviet relations — \$150,000 (1987)</i>		100,000	50,000	50,000
American Council of Learned Societies 228 East 45th Street New York, New York 10017				
<i>Fellowships for recent Ph.D. recipients — \$345,000 (1987)</i>		345,000	115,000	230,000
American Library Association 50 East Hudson Street Chicago, Illinois 60611				
<i>Program to encourage educational videocassette use in public libraries — \$560,000 (1987)</i>		42,000	42,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Society of Zoologists P.O. Box 2739 Thousand Oaks, California 91360 <i>Reprinting and distributing symposium papers on undergraduate biology</i>	25,000		25,000	
<i>Symposium series on education in biology</i>	162,330		51,105	111,225
Appropriate Health Resources and Technologies Action Group 10 Marylebone High Street London W1M 3DE, United Kingdom <i>Publication and distribution of an issue of a newsletter for health personnel on the role of women in controlling diarrheal diseases among children in developing countries—\$25,000 (1987)</i>		25,000	25,000	
Arizona State University Tempe, Arizona 85287 <i>Interinstitutional program to increase the numbers of Hispanic students in graduate schools</i>	125,000		61,000	64,000
Arms Control Association 11 Dupont Circle, N.W. Washington, D.C. 20036 <i>Program on arms control and national security for the Washington press corps—\$150,000 (1987)</i>		100,000	50,000	50,000
Aspen Institute for Humanistic Studies Wye Plantation, P.O. Box 222 Queenstown, Maryland 21658 <i>Inter-American Dialogue—\$250,000 (1986)</i>		83,320	83,320	
<i>Aspen Strategy Group</i>	200,000		50,000	150,000
<i>Meetings on U.S.-Soviet relations for American lawmakers</i>	450,000		450,000	
Association of Science-Technology Centers 1413 K Street, N.W. Washington, D.C. 20005-3405 <i>Assistance to science museums in serving girls, minorities, and disabled students—\$433,700 (1987)</i>		363,500	145,650	217,850
Association of West European Parliamentarians for Action Against Apartheid P.O. Box 402 2501 CK, The Hague, The Netherlands <i>Participation by representatives of present or former Commonwealth countries in two conferences on Western assistance for regional political and economic development in southern Africa</i>	15,000		15,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Avance-San Antonio 301 South Frio San Antonio, Texas 78207 <i>Evaluation of the Parent Education Program—\$400,000 (1987)</i>		290,000	224,000	66,000
<i>Strengthening the Avance program</i>	14,000		14,000	
Bank Street College of Education 610 West 112th Street New York, New York 10025 <i>Dissemination of a study of public school involvement in programs for young children</i>	25,000		25,000	
<i>Study of public school involvement in programs for young children</i>	100,000		50,000	50,000
Black Lawyers Association Legal Education Centre P.O. Box 5217 2000 Johannesburg, Republic of South Africa <i>Support</i>	25,000		25,000	
Breznitz, Shlomo 343 Congressional Lane Rockville, Maryland 20852 <i>Writing on education for a changing world—\$25,000 (1985)</i>		3,000	2,500	500
Brookings Institution 1755 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Research and writing on international relations by Harold Saunders</i>	25,000		25,000	
<i>Research on international security issues as affected by U.S.-Soviet relations</i>	900,000		300,000	600,000
Brown University Providence, Rhode Island 02912 <i>Coalition of Essential Schools</i>	400,000		150,000	250,000
California State Department of Education 721 Capitol Mall Sacramento, California 94244 <i>Regional networks of middle grade schools to introduce educational reform</i>	250,000		130,000	120,000
California State University, Dominguez Hills Carson, California 90747 <i>Model program to increase the numbers of minority mathematics and science teachers—\$270,000 (1987)</i>		150,000	89,000	61,000



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
California, University of, Berkeley Berkeley, California 94720				
<i>Writing on higher education, industrial relations, and social change by Clark Kerr — \$145,500 (1984)</i>		18,903	18,903	
<i>Research on Soviet foreign policy and behavior in selected regions — \$599,675 (1985)</i>		110,342	110,342	
<i>Berkeley-Stanford Program on Soviet International Behavior</i>	750,000		114,622	635,378
<i>Mathematics, engineering, and science achievement program at the junior high school level</i>	350,000		87,500	262,500
<i>Research on education and the economy</i>	95,000		95,000	
California, University of, Irvine Irvine, California 92717				
<i>Model program to increase the numbers of minority mathematics and science teachers — \$315,000 (1987)</i>		160,000	120,000	40,000
California, University of, Los Angeles Los Angeles, California 90024				
<i>Participation by African representatives in a conference on U.S.-Soviet cooperation for Africa</i>	25,000		25,000	
California, University of, San Diego La Jolla, California 92093				
<i>Conference on the relationship between science and government in the United States</i>	25,000		25,000	
<i>U.S.-Soviet project on the educational uses of computers in the early elementary school grades</i>	250,000		250,000	
California, University of, San Francisco San Francisco, California 94143				
<i>Evaluation of comprehensive school-based health clinics in the Bay Area — \$200,000 (1986)</i>		76,866	76,866	
Cape Town, University of University Private Bag 7700 Rondebosch, Republic of South Africa				
<i>Centre for Documentary Photography — \$72,000 (1987)</i>		32,000	16,000	16,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Caribbean Resource Development Foundation P.O. Box 248074 Coral Gables, Florida 33124 <i>Meeting of leaders from the Caribbean and North America on Caribbean development</i>	5,000		5,000	
Carnegie Dunfermline Trust Abbey Park House, Dunfermline Fife KY12 7PB, United Kingdom <i>Maintenance of the Andrew Carnegie Birthplace Memorial — \$25,000 (1987)</i>		20,000	5,000	15,000
Carnegie Endowment for International Peace 11 Dupont Circle, N.W. Washington, D.C. 20036 <i>Analysis of the effects of commercial observation satellites on global security</i>	243,000		243,000	
<i>Preparation, publication, and dissemination of an annual report on nuclear proliferation</i>	230,000		57,500	172,500
Carnegie Mellon University Pittsburgh, Pennsylvania 15213 <i>Consortium to develop educational applications for an information technology system in higher education</i>	201,500		156,980	44,520
<i>Study of adolescent decision making</i>	309,000		132,000	177,000
Center for Applied Linguistics 1118 22nd Street, N.W. Washington, D.C. 20037 <i>National project to improve mathematics and science education through language instruction</i>	290,000		100,000	190,000
Center for Education on Nuclear War 122 Maryland Avenue, N.E. Washington, D.C. 20002 <i>Study group on United States policy on the use of nuclear weapons</i>	150,000		150,000	
Center for Excellence in Government 20 F Street, N.W. Washington, D.C. 20001 <i>Project to identify the skills required for key executive positions in the United States government</i>	25,000		25,000	
Center for Population Options 1012 14th Street, N.W. Washington, D.C. 20005 <i>Projects concerned with the electronic media and adolescent sexuality — \$250,000 (1987)</i>		125,000	125,000	
<i>Services to school-based health clinics</i>	200,000		100,000	100,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Center for Strategic and International Studies 1800 K Street, N.W. Washington, D.C. 20006 <i>Conference on Soviet civil-military relations and implications for East-West relations</i>	25,000		25,000	
Center for Women Policy Studies 2000 P Street, N.W. Washington, D.C. 20036 <i>Program to increase minority girls' participation in mathematics, science, and technology education</i>	135,000		135,000	
Charles F. Kettering Foundation 200 Commons Road Dayton, Ohio 45459 <i>Task force on U.S.-Soviet political relations and for public education, under the auspices of the Dartmouth Conference</i>	200,000		200,000	
Chicago Theological Seminary 5757 South University Avenue Chicago, Illinois 60637 <i>Field education project on black church programs for children and families—\$331,500 (1985)</i>		55,250	55,250	
Chicago, University of Chicago, Illinois 60637 <i>Development of an integrated secondary school mathematics curriculum—\$1,000,000 (1986)</i>		333,333		333,333
<i>Research on factors influencing family structure in the inner city—\$300,000 (1986)</i>		100,000	100,000	
Child Care Action Campaign 99 Hudson Street New York, New York 10013 <i>Research and writing for a conference on child care</i>	25,000		25,000	
Child Care, Inc. 275 Seventh Avenue New York, New York 10001 <i>Development of model family day care networks in New York City—\$260,000 (1986)</i>	110,000	65,000	65,000 110,000	
Children's Defense Fund 122 C Street, N.W. Washington, D.C. 20001 <i>General support and a fund for institutional development</i>	1,250,000		800,000	450,000
<i>Media campaign to help prevent adolescent pregnancy—\$400,000 (1987)</i>		200,000	200,000	



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Children's Express Foundation 20 Charles Street New York, New York 10014 <i>Creation of a national system of children's press clubs in conjunction with a weekly televised children's news program</i>	225,000		100,000	125,000
Children's Television Workshop One Lincoln Plaza New York, New York 10023 <i>Production of a television series about mathematics for children</i>	300,000		300,000	
Cleveland Education Fund 1400 Hanna Building Cleveland, Ohio 44115 <i>Model program to improve science education in the Cleveland Public Schools — \$150,000 (1987)</i>		100,000	50,000	50,000
Columbia University New York, New York 10027 <i>Research and training on Soviet international security and arms control issues — \$1,500,000 (1985)</i>		500,000		500,000
<i>Development of model comprehensive health and educational services in junior high schools — \$330,000 (1985)</i>		55,000	55,000	
<i>Research and public education in the Caribbean and sub-Saharan Africa about laws and policies affecting the education and health of women and girls — \$250,000 (1986)</i>		61,000	61,000	
<i>National resource center to promote health and development programs for children in poverty — \$300,000 (1987)</i>		150,000	150,000	
<i>Research and training on maternal health in sub-Saharan Africa — \$996,900 (1987)</i>		638,345	160,660	477,685
<i>Development of model comprehensive health and educational services in junior high schools</i>	440,000			440,000
<i>Faculty seminar on the political psychology of Soviet-American relations</i>	9,130		9,130	
<i>Preparation of educational materials on the verification of current and prospective nuclear test ban treaties</i>	25,000		25,000	
Committee for Economic Development 477 Madison Avenue New York, New York 10022 <i>Dissemination of the report Children in Need, and an evaluation of the impact of business on education</i>	50,000		50,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Committee for National Security 1601 Connecticut Avenue N.W. Washington, D.C. 20009 <i>Series of study guides on the Soviet Union and U.S.-Soviet relations — \$100,000 (1987)</i>		50,000	50,000	
Community Colleges of Spokane N2000 Greene Street, MS 1001 Spokane, Washington 99207 <i>Planning a program of critical thinking and communication skills for community college students</i>	25,000		25,000	
Congress of National Black Churches 1025 Connecticut Avenue, N.W. Washington, D.C. 20036 <i>Church-based educational programs for children and families</i>	758,900		564,049	194,851
Consortium for International Cooperation in Higher Education One Dupont Circle, N.W. Washington, D.C. 20036 <i>Public education project on United States relations with developing countries</i>	17,400		17,400	
Consortium for the Advancement of Private Higher Education 1606 New Hampshire Avenue, N.W. Washington, D.C. 20009 <i>Support — \$550,000 (1987)</i>	550,000	275,000	275,000 275,000	275,000
Cornell University Ithaca, New York 14853 <i>Research and writing on the management of international crises — \$91,000 (1987)</i>		51,000	51,000	
<i>Program in international security studies</i>	450,000		330,000	120,000
Council for Advancement and Support of Education 11 Dupont Circle Washington, D.C. 20036 <i>Dissemination of the report of the National Task Force on Higher Education and the Public Interest</i>	10,000		10,000	
Council of Chief State School Officers 400 North Capitol Street, N.W. Washington, D.C. 20001 <i>Assistance to state education departments in improving the education of language-minority students — \$400,000 (1987)</i>		234,227	234,227	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Council of Graduate Schools in the United States One Dupont Circle, N.W. Washington, D.C. 20036 <i>Study of the underrepresentation of minorities in graduate schools</i>	22,000		22,000	
Council of State Governments P.O. Box 11910, Iron Works Pike Lexington, Kentucky 40578 <i>Adolescent pregnancy prevention activities of the Southern Governors' Association — \$88,500 (1987)</i>	154,000	44,250	44,250 39,000	115,000
Council on Economic Priorities 30 Irving Place New York, New York 10003 <i>Conference on arms control verification and compliance</i>	15,000		15,000	
Council on Foreign Relations 58 East 68th Street New York, New York 10021 <i>Study on U.S.-Soviet relations in the next decade — \$150,000 (1987)</i>		75,000	75,000	
Council on Foundations 1828 L Street, N.W. Washington, D.C. 20036 <i>1988 membership support</i>	24,700		24,700	
Council on Library Resources 1785 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Program of education and management training in the research library field — \$450,000 (1981)</i>		80,000	80,000	
Curry Foundation 2100 M Street, N.W. Washington, D.C. 20037 <i>Resource guidebook for development educators</i>	25,000		25,000	
Dar es Salaam, University of P.O. Box 35091 Dar es Salaam, Tanzania <i>Evaluation of the Essential Drug Program in Tanzania</i>	150,000		19,968	130,032
Defense for Children International-USA 210 Forsyth Street New York, New York 10002 <i>Public education in the United States on children's rights throughout the Third World — \$10,000 (1986)</i>		3,000	3,000	
<i>Study of the effects of maternal mortality on African children</i>	25,000		25,000	



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Defense Forecasts 1742 Swann Street, N.W. Washington, D.C. 20009 <i>Research and writing on the politics of nuclear strategy—\$100,000 (1987)</i>		70,000	70,000	
Development Group for Alternative Policies 1010 Vermont Avenue, N.W. Washington, D.C. 20005 <i>Symposium on United States development assistance policy in the eastern Caribbean</i>	25,000		25,000	
Dryfoos, Joy G. 20 Circle Drive Hastings-on-Hudson, New York 10706 <i>Research and writing on adolescents at risk</i>	60,000		30,200	29,800
Duke University Durham, North Carolina 27706 <i>Planning a conference on poverty and change in southern Africa</i>	24,900		24,900	
<i>Planning collaborative programs to improve maternal and child health in Tanzania</i>	25,000		25,000	
<i>Public education about South Africa</i>	75,000		75,000	
<i>Public education about South Africa</i>	59,600		59,600	
<i>Study task force and international commission on Central American recovery and development</i>	350,000		350,000	
<i>Teaching and writing on South Africa</i>	25,000		25,000	
Dwight D. Eisenhower World Affairs Institute 918 16th Street, N.W. Washington, D.C. 20006 <i>Program on the history and future of U.S.-Soviet exchanges</i>	15,000		15,000	
Eastern Cape Legal Information and Support Services c/o Andre Roux Department of Economics Rhodes University 6140 Grahamstown, Republic of South Africa <i>Legal advice and education program in rural South Africa—\$50,000 (1986)</i>		50,000	50,000 <sup>a</sup>	
<i>Legal training program</i>	12,000		12,000	
Editorial Projects in Education 4301 Connecticut Avenue, N.W. Washington, D.C. 20008 <i>Marketing plan to increase readership by public school teachers of Education Week</i>	25,000		25,000	
<i>Marketing plan to increase readership of Education Week by public school teachers</i>	275,000			275,000

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Education Commission of the States 1860 Lincoln Street Denver, Colorado 80295 <i>Assistance to states in developing policies for at-risk youth — \$354,000 (1987)</i>		89,000	89,000	
Education Development Center 55 Chapel Street Newton, Massachusetts 02160 <i>Meetings on teacher networks and educational improvement</i>	25,000		25,000	
Education, Training, and Research Associates 1700 Mission Street Santa Cruz, California 95061 <i>Development of family life education materials for Hispanic students — \$173,900 (1987)</i>		130,762	48,157	82,605
<i>Publish and disseminate a review of programs and services to foster responsible sexual behavior on the part of adolescent boys</i>	10,300		10,300	
Educational Broadcasting Corporation 356 West 58th Street New York, New York 10019 <i>Development of a television series on U.S.-Soviet relations — \$250,000 (1986)</i>		175,000 250,000		175,000 250,000
Educational Foundation for Nuclear Science 6042 South Kimbark Avenue Chicago, Illinois 60637 <i>Marketing strategy for the Bulletin of the Atomic Scientists</i>	25,000		25,000	
Educational Opportunities Trust P.O. Box 3323 2000 Johannesburg, Republic of South Africa <i>Support of the research unit</i>	50,000		25,000	25,000
Emory University Atlanta, Georgia 30322 <i>Planning by the Carter Presidential Center for an international negotiations network</i>	25,000		25,000	
Environmental Defense Fund 257 Park Avenue South New York, New York 10010 <i>Study of lead exposure in United States children and women and the dissemination of information to the public</i>	25,000		25,000	

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Environmental Policy Institute 218 D Street, S.E. Washington, D.C. 20003 <i>Project to define important environmental problems and innovative solutions to them</i>	25,000		25,000	
Erickson Institute 25 West Chicago Avenue Chicago, Illinois 60610 <i>Development of a training and certification program for community child safety specialists — \$310,000 (1987)</i>		235,000	155,000	80,000
Facing History and Ourselves National Foundation 25 Kennard Road Brookline, Massachusetts 02146 <i>Development and dissemination of a school curriculum on voluntarism and the nonprofit sector</i>	25,000		25,000	
Family Care International 902 Broadway New York, New York 10010 <i>Survey of selected organizations working in Africa to promote women's health</i>	25,000		25,000	
Far West Laboratory for Educational Research and Development 1855 Folsom Street San Francisco, California 94103 <i>Development of a training program for infant and toddler caregivers</i>	250,000		62,500	187,500
Federation of American Scientists Fund 307 Massachusetts Avenue, N.E. Washington, D.C. 20002 <i>U.S.-Soviet joint scientific study disarmament verification</i>	200,000		100,000	100,000
Federation of Behavioral, Psychological, and Cognitive Sciences 1200 17th Street, N.W. Washington, D.C. 20036 <i>Series of science and public policy seminars</i>	25,000		25,000	
First Parish of Cambridge 3 Church Street, Harvard Square Cambridge, Massachusetts 02138 <i>Series of radio broadcasts by Cambridge Forum on avoiding nuclear war — \$75,000 (1987)</i>		50,000	25,000	25,000
Fund for Peace 345 East 46th Street New York, New York 10017 <i>Discussions of arms control between scholars and policy makers</i>	15,000		15,000	



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Fundación Educativa Ana G. Méndez Apartado 21345 Rio Piedras, Puerto Rico 00928 <i>Precollege mathematics and science program in Puerto Rico</i>	400,000		166,000	234,000
Fundación Mexicana para la Salud 20 Piso San Jeronimo Lidice Avenida Contraria, 1200 Mexico <i>Research in maternal and child health and strengthening of health resources in Mexico—\$575,000 (1987)</i>		575,000	290,000	285,000
George Washington University Washington, D.C. 20052 <i>Series of policy seminars on child health and development issues—\$233,450 (1986)</i>		59,225	59,225	
Georgetown University Washington, DC 20006 <i>Study of scientific and technical education and personnel in the Soviet Union—\$100,000 (1987)</i>		100,000	100,000	
Girls Clubs of America 30 East 33rd Street New York, New York 10016 <i>Model science and mathematics program for young adolescent girls in low-income communities—\$211,000 (1987)</i>		109,000	109,000	
<i>Development and evaluation of four models of pregnancy prevention among adolescents</i>	200,000		75,000	125,000
Gliksman, Alex 3800 North Fairfax Drive Arlington, Virginia 22203 <i>Research and writing on emerging conventional arms technology</i>	25,000		21,100	3,900
Global Outlook Education Institute 405 Lytton Avenue Palo Alto, California 94301 <i>Research on Soviet "new thinking" about international security</i>	25,000		25,000	
Global Tomorrow Coalition 1325 G Street, N.W. Washington, D.C. 20005 <i>Public education in the United States concerning international development</i>	25,000		25,000	
Goucher College Towson, Maryland 21204 <i>Public Leadership Education Network</i>	20,000		20,000	

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Hall of Science of the City of New York 47-81 111th Street Corona, New York 11368 <i>Model educational program for public school science teachers—\$180,000 (1987)</i>		50,000	50,000	
Harvard University Cambridge, Massachusetts 02138 <i>Childhood Injury Prevention Resource Center—\$390,300 (1987)</i>		193,750	193,750	
<i>Study of policy formulation and implementation in Nigerian higher education from 1960 to the present—\$86,200 (1987)</i>		43,300	43,300	
<i>Analysis of adolescent substance abuse and an evaluation of prevention programs and public policies</i>	600,000		75,000	525,000
<i>Analysis of policies affecting children in poverty</i>	217,500		140,000	77,500
<i>Catalogue of programs to prevent problems of adolescence and a survey of training programs</i>	25,000		25,000	
<i>Commission on Health Research for Development</i>	100,000		50,000	50,000
<i>Planning a collaborative training program in health and behavioral research in sub-Saharan Africa</i>	25,000		25,000	
<i>Research and education on the avoidance of nuclear war</i>	1,290,000		625,000	665,000
<i>Resource guide on family support programs in the schools and a study of state-supported programs</i>	100,000		37,000	63,000
<i>Study of federal research and development policies and their impact on science and engineering education</i>	250,000		83,333	166,667
<i>Takemi Program in International Health of the Harvard School of Public Health</i>	250,000		65,000	185,000
Helsinki Watch 36 West 44th Street New York, New York 10036 <i>International human rights mission to the Soviet Union</i>	25,000		25,000	
High/Scope Educational Research Foundation 600 North River Street Ypsilanti, Michigan 48197 <i>Consultative Group on Early Childhood Care and Development—\$10,000 (1986)</i>		5,000	5,000	

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<i>Consultative Group on Early Childhood Care and Education</i>	5,000		5,000	
<i>Research, policy studies, and dissemination of information on early childhood education — \$460,500 (1987)</i>		312,466	153,400	159,066
Houston, University of Houston, Texas 77004 <i>Study of the long-term effects of parent education through Parent Child Development Centers</i>	14,000		14,000	
Howard University Washington, D.C. 20059 <i>Conference on United States policy toward South Africa</i>	10,000		10,000	
Ibadan, University of Ibadan, Nigeria <i>Analysis of demand and delivery of health care in Nigeria</i>	146,000		76,900	69,100
<i>Participation in an international study of preprimary education</i>	24,300		24,300	
<i>Workshop on maternal health</i>	25,000		25,000	
Illinois Caucus on Teenage Pregnancy 100 West Randolph Street Chicago, Illinois 60601 <i>Statewide program of pregnancy prevention among middle school students — \$70,000 (1986)</i>		35,000	35,000	
Independent Sector 1828 L Street, N.W. Washington, D.C. 20036 <i>National program to increase individual giving and volunteering for nonprofit causes</i>	150,000		150,000	
<i>1988 membership support</i>	7,400		7,400	
Institute for East-West Security Studies 360 Lexington Avenue New York, New York 10017 <i>U.S.-Soviet Relations Program — \$300,000 (1985)</i>		19,500		19,500
<i>International volume of essays on conventional arms control</i>	25,000		25,000	
<i>Working group on conventional arms control</i>	247,000		60,500	186,500
Institute for Educational Leadership 1001 Connecticut Avenue, N.W. Washington, D.C. 20036 <i>Center for Demographic Policy</i>	75,000		75,000	



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Institute of International Education 809 United Nations Plaza New York, New York 10017 <i>Career development fellowship program for black South Africans in United States universities — \$200,000 (1987)</i>		100,000	100,000	
<i>Clearinghouse for United States programs in education for black South Africans — \$150,000 (1987)</i>		50,000		50,000
<i>Conference on scholarships for black South Africans</i>	3,000		3,000	
<i>Meeting of International Health Policy Program participants</i>	25,000		25,000	
International Association for the Evaluation of Educational Achievement 1400 Washington Avenue Albany, New York 12222 <i>Report on the Second International Science Study</i>	25,000		25,000	
International Council of Nurses 3, place Jean-Marteau 1201 Geneva, Switzerland <i>Participation by representatives of Commonwealth countries in Africa in workshops on nursing regulation for primary health care</i>	200,000		50,000	150,000
International Council of Scientific Unions 51 boulevard de Montmorency 76015 Paris, France <i>Project on the environmental consequences of nuclear war — \$50,000 (1987)</i>		25,000	25,000	
<i>Joint UN/ENUWAR workshop on the consequences of nuclear war</i>	25,000		25,000	
International Development Conference 1401 New York Avenue, N.W. Washington, D.C. 20005 <i>Public education about international development</i>	25,000		25,000	
International Health and Biomedicine The Manor House, Alfriston East Sussex BN265, United Kingdom <i>Research for books and television programs on science and technology in developing countries — \$353,650 (1986)</i>		238,262	116,226	122,036

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International Research and Exchanges Board 126 Alexander Street Princeton, New Jersey 08540 <i>Facilitation of meetings involving U.S. and Soviet scholars and policy experts —\$400,000 (1986)</i>		50,000	50,000	
<i>Facilitation and dissemination of meetings involving U.S. and Soviet scholars and policy experts</i>	500,000		30,000	470,000
<i>U.S.-Soviet joint study on crisis prevention and settlement</i>	160,000		80,000	80,000
International Student Pugwash 505-B 2nd Street, N.E. Washington, D.C. 20002 <i>Student programs on science and technology in society—\$100,000 (1987)</i>		50,000	25,000	25,000
Investor Responsibility Research Center 1755 Massachusetts Avenue Washington, D.C. 20036 <i>Handbook for community development organizations in South Africa about sources of support</i>	25,000		25,000	
Janis, Irving L. 627 Scotland Drive Santa Rosa, California 95404 <i>Research and writing on the management of international crisis —\$91,550 (1987)</i>		57,133	57,133	
Johns Hopkins University Baltimore, Maryland 21218 <i>Conferences of American legislators with British parliamentarians and African leaders—\$106,600 (1971)</i>		7,956		7,956
<i>Development of a handbook for state and local policymakers on the prevention of childhood injury—\$300,000 (1987)</i>		190,000	140,000	50,000
<i>Research and writing on policies to reduce school failure by David W. Hornbeck</i>	122,000		31,000	91,000
<i>Study on military forces and arms control</i>	133,000		66,500	66,500
Joint Center for Political Studies 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20004 <i>Policy research on the black family—\$500,000 (1987)</i>		330,500	193,500	137,000
<i>National leadership conference of black elected and appointed officials</i>	25,000		25,000	

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<i>Workshop on statistical adjustment methodology and the 1990 census</i>	25,000		25,000	
Keller, George 2432 Pickwick Road Baltimore, Maryland 21207 <i>Research and writing on changes in higher education required by new conditions in American society</i>	25,000		11,250	13,750
Kenya Medical Research Institute P.O. Box 54840 Nairobi, Kenya <i>Information Management System</i>	25,000		25,000	
Kenyatta University Nairobi, Kenya <i>Participation in an international study of preprimary education</i>	25,000		25,000	
Koshel, Jeffrey, Madeleine Kimmich, Therese Van Houten 2842 Chesterfield Place, N.W. Washington, D.C. 20008 <i>Updating a 1985 report on state efforts to reduce problems of teen pregnancy and parenting</i>	24,700			24,700
Lawyers' Committee for Civil Rights Under Law 1400 Eye Street, N.W. Washington, D.C. 20005 <i>Voting Rights Project</i>	200,000		200,000	
Leakey Foundation Foundation Center 1-7 Pasadena, California 91125 <i>Symposia on endangered populations</i>	25,000		25,000 <sup>a</sup>	
Legal Resources Trust P.O. Box 9495 2000 Johannesburg, Republic of South Africa <i>Legal Resources Centre to serve the rural Eastern Cape region of South Africa</i>	50,000		25,000	25,000
Los Angeles Educational Partnership 1052 West Sixth Street Los Angeles, California 90017 <i>Model program to improve science education in the Los Angeles public schools — \$151,400 (1987)</i>		100,890	100,890	
Marine Biological Laboratory Woods Hole, Massachusetts 02543 <i>Fellowship program for science writers</i>	20,000		20,000	



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Massachusetts Institute of Technology Cambridge, Massachusetts 02139				
<i>Arms Control and Defense Policy—</i> \$1,100,000 (1984)		162,000	162,000	
<i>Planning a national program to increase the education of minorities—</i> \$1,182,000 (1987)		1,152,000	768,000	384,000
<i>Project on the social and political implications of science and technology in the Soviet Union—\$25,000 (1987)</i>		15,000		15,000
<i>Defense and Arms Control Studies Program</i>	1,100,000			1,100,000
<i>Summer research program in science for minority students</i>	20,000		20,000	
Mathematical Association of America 1529 18th Street, N.W. Washington, D.C. 20036				
<i>American Mathematics Project</i>	20,000			20,000
Meharry Medical College 1005 D.B. Todd Boulevard Nashville, Tennessee 37208				
<i>Community-based pregnancy prevention program for adolescents—\$750,000 (1987)</i>		400,000	250,000	150,000
MELD 123 North 3rd Street Minneapolis, Minnesota 55401				
<i>Development of parent education and support programs for young low-income Hispanic parents in California—</i> \$521,000 (1987)		336,900	78,000	258,900
Melmed, Arthur S. 4727 30th Street, N.W. Washington, D.C. 20008				
<i>Writing on improving education through the application of cognitive science and information technology—</i> \$16,530 (1986)		6,530		6,530
Mental Health Law Project 2021 L Street, N.W. Washington, D.C. 20036				
<i>Advocacy on behalf of preschool developmentally disabled children—</i> \$230,000 (1986)		50,000	50,000	
Mexican American Legal Defense and Educational Fund 634 South Spring Street Los Angeles, California 90014				
<i>Program of education litigation and advocacy—\$750,000 (1987)</i>		500,000	250,000	250,000

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Michigan State University East Lansing, Michigan 48824 <i>Conference on United States relations with developing countries in the 1990's</i>	25,000		25,000	
Michigan, University of Ann Arbor, Michigan 48109 <i>Research and writing on alternate approaches to the study of conflict and cooperation — \$320,000 (1987)</i>		210,000	105,000	105,000
<i>Longitudinal study of black registration and voting patterns in the 1988 presidential election</i>	70,000		70,000	
<i>Studies of social support networks in adolescence</i>	48,000		24,000	24,000
Minnesota, University of Minneapolis, Minnesota 55455 <i>Research and public education in the Caribbean and sub-Saharan Africa about laws and policies affecting the education and health of women and girls — \$252,000 (1986)</i>		73,900	73,900	
Morehouse School of Medicine 720 Westview Drive, S.W. Atlanta, Georgia 30310 <i>Resource center for community-based health promotion projects in the southern United States</i>	25,000		25,000	
Mount Sinai School of Medicine One Gustave Levy Place New York, New York 10029 <i>Staff support to the chair of the working group on Enhancement of Life Skills and Decision Making of the Carnegie Council on Adolescent Development</i>	25,000		25,000	
Multicultural Education Training and Advocacy Project 50 Broadway Somerville, Massachusetts 02146 <i>Training and advocacy on behalf of language-minority children</i>	200,000		105,000	95,000
NAACP Legal Defense and Educational Fund 99 Hudson Street New York, New York 10013 <i>Education litigation program — \$555,000 (1987)</i>		462,500	185,000	277,500
<i>Planning a national survey of public attitudes on race relations</i>	25,000		25,000	
<i>National survey of public attitudes on race relations</i>	275,000		210,500	64,500

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
NAACP Special Contribution Fund 4805 Mt. Hope Drive Baltimore, Maryland 21215 <i>Program of education litigation and advocacy — \$696,000 (1987)</i>		464,000	232,000	232,000
Nairobi, University of Nairobi, Kenya <i>Analysis of health services financing in Kenya</i>	150,000		50,000	100,000
National Academy of Sciences 2101 Constitution Avenue, N.W. Washington, D.C. 20418 <i>Studies of important national issues — \$300,000 (1985)</i>		100,000	100,000	
<i>Committee on the Contributions of Behavioral and Social Science to the Prevention of Nuclear War — \$421,000 (1987)</i>		210,000	210,000	
<i>National Forum on the Future of Children and Their Families — \$536,000 (1987)</i>		268,000	134,000	134,000
<i>Development of curricular models for school mathematics</i>	287,000		143,500	143,500
<i>Dissemination of a report by the Institute of Medicine on outreach for prenatal care</i>	10,000		10,000	
<i>Planning by the Institute of Medicine for an international conference on women's work for health in developing countries</i>	23,000		23,000	
<i>To enable participants from Commonwealth countries to attend a symposium on scientific institution-building in Africa</i>	10,570		10,570	
National Academy of Social Insurance 505 Capitol Court, N.E. Washington, D.C. 20002 <i>Support — \$200,000 (1987)</i>		100,000	65,000	35,000
<i>Research and writing on social insurance, welfare, and health by Robert M. Ball</i>	25,000		25,000	
National Association for Bilingual Education 1201 16th Street, N.W. Washington, D.C. 20036 <i>Support — \$150,000 (1986)</i>		75,000	50,000	25,000
National Association for Equal Opportunity in Higher Education 2243 Wisconsin Avenue, N.W. Washington, D.C. 20007 <i>Research office on black higher education — \$225,000 (1985)</i>		75,000	75,000	



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<i>Participation by outstanding students in mathematics, science, and engineering in the 1988 White House Initiative on Historically Black Colleges and Universities Symposium</i>	25,000		25,000	
National Association of College and University Business Officers One Dupont Circle Washington, D.C. 20036 <i>Establishment of a task force on college retirement issues</i>	25,000		25,000	
National Association of the State Boards of Education 701 North Fairfax Street Alexandria, Virginia 22314 <i>Technical assistance to states on preschool education policies and programs — \$301,600 (1986)</i>		77,225	77,225	
National Black Child Development Institute 1463 Rhode Island Avenue, N.W. Washington, D.C. 20005 <i>Support — \$225,000 (1986)</i>		50,000	50,000	
National Board for Professional Teaching Standards 333 West Fort Street Detroit, Michigan 48226 <i>Support — \$1,000,000 (1987)</i>	1,000,000	1,000,000	1,000,000 1,000,000	
National Center on Education and the Economy 39 State Street Rochester, New York 14614 <i>Support</i>	200,000		200,000	
National Center for Science Education 23 Chelsea Drive Syosset, New York 11791 <i>Support — \$150,000 (1986)</i>		50,000	50,000	
National Center for Youth Law 1663 Mission Street San Francisco, California 94103 <i>Research and technical assistance on legal aspects of adolescent health clinics — \$203,000 (1987)</i>		101,580	50,790	50,790
National Charities Information Bureau 19 Union Square West New York, New York 10003 <i>Support — \$15,000 (1987)</i>		5,000	5,000	
National Coalition of Advocates for Students 100 Boylston Street Boston, Massachusetts 02116 <i>Support</i>	250,000		125,000	125,000

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National Commission on the Public Service 1616 H Street, N.W. Washington, D.C. 20006 <i>Support</i>	50,000		50,000	
National Committee for Responsive Philanthropy 2001 S Street, N.W. Washington, D.C. 20009 <i>Support</i>	10,000		10,000	
National Conference of State Legislatures 1050 17th Street Denver, Colorado 80265 <i>Information and technical assistance on early childhood education and child-care policy for state legislatures — \$492,000 (1987)</i>		252,000	135,000	117,000
National Council for International Health 1701 K Street, N.W. Washington, D.C. 20006 <i>Public education in the United States about the activities of the World Health Organization</i>	15,000		15,000	
National Council of Educational Opportunity Associations 1126 16th Street, N.W. Washington, D.C. 20036 <i>Conference on access and retention of low income, minority, and handicapped students</i>	19,500		19,500	
National Council of La Raza 20 F Street, N.W. Washington, D.C. 20001 <i>Analysis of policies and programs affecting the education of Hispanic Americans — \$225,000 (1986)</i>		112,500	75,000	37,500
National Council of Returned Peace Corps Volunteers P.O. Box 65294 Washington, D.C. 20035 <i>Public education project on development assistance — \$98,000 (1987)</i>		48,500	48,500	
National Council of the Churches of Christ in the U.S.A. 475 Riverside Drive New York, New York 10115 <i>Activities to improve the quality of child care programs — \$330,000 (1985)</i>		55,000		55,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Executive Service Corps 622 Third Avenue New York, New York 10017 <i>Program to prepare industry and military personnel to teach mathematics and science in public schools upon retirement — \$392,000 (1987)</i>		92,000	92,000	
National Governors' Association Center for Policy Research 444 North Capitol Street Washington, D.C. 20001 <i>Assistance to states and localities in implementing the recommendations of the Carnegie Task Force on Teaching as a Profession — \$890,000 (1987)</i>	691,000	145,300	145,300 345,500	345,500
National Humanities Center 7 Alexander Drive Research Triangle Park, North Carolina 27709 <i>Radio programs on education</i>	16,500		16,500	
<i>Radio programs on the civil rights movement</i>	25,000		25,000	
National League of Cities Institute 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20004 <i>Project to develop the League's capacity to assist cities on child and family issues</i>	85,000		85,000	
National Progressive Primary Health Care Committee 74 Lorne Street, Lancet Medical Centre 4001 Durban, Republic of South Africa <i>Network of institutions and individuals concerned with primary health care in South Africa</i>	167,300			167,300
National Public Radio 2025 M Street, N.W. Washington, D.C. 20036 <i>Coverage of Third World development — \$300,000 (1985)</i>		125,000	75,000	50,000
<i>Coverage of the 1988 presidential campaign</i>	200,000		200,000	
National Puerto Rican Coalition 1700 K Street, N.W. Washington, D.C. 20006 <i>Core public policy and public affairs programs</i>	250,000		125,000	125,000
National Science Teachers Association 1742 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>National intersectoral coalition to improve science and technology education in the schools — \$250,000 (1986)</i>	150,000	67,800	67,800 93,700	56,300

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Urban Coalition 1120 G Street, N.W. Washington, D.C. 20005 <i>Program for black and Hispanic parents and community groups to improve education in science, mathematics, and technology in the schools</i>	350,000		170,000	180,000
National Urban League 500 East 62nd Street New York, New York 10021 <i>Media campaign and program development to foster responsible sexual behavior among adolescent black males —\$339,400 (1986)</i>	415,000	97,375	97,375 102,500	312,500
Native American Science Education Association 10 East 87th Street New York, New York 10028 <i>Project to strengthen precollege science and mathematics instruction for native Americans —\$175,175 (1986)</i>		45,973		45,973
Nebraska, University of, Omaha Omaha, Nebraska 68181 <i>Development of a traveling exhibition on Andrew Carnegie and his library gifts</i>	10,000		10,000	
Nebraskans for Public Television P.O. Box 83111 Lincoln, Nebraska 68501 <i>Production of television science programs for primary school children</i>	150,000		150,000	
New York Academy of Sciences 2 East 63rd Street New York, New York 10021 <i>Conference on biomedical science and developing countries</i>	25,000		25,000	
<i>Meetings on science policy</i>	4,000		4,000	
New York, Board of Education of the City of 110 Livingston Street Brooklyn, New York 11201 <i>School Improvement Project —\$175,000 (1980)</i>		43,750		43,750
New York, Graduate School and University Center of the City University of New York, New York 10036 <i>Survey of community service programs for young adolescents</i>	25,000		25,000	
New York Public Library Fifth Avenue and 42nd Street New York, New York 10018 <i>Program support —\$500,000 (1986)</i>		200,000	150,000	50,000



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
New York Regional Association of Grantmakers 505 Eighth Avenue New York, New York 10018 <i>1988 membership support</i>	7,125		7,125	
New York University New York, New York 10003 <i>Research on the developmental pathways of high-risk adolescents — \$400,000 (1987)</i>		315,000	135,000	180,000
<i>Documentation and evaluation of dropout prevention programs</i>	300,000		145,000	155,000
<i>Research and training on news media coverage of international security issues</i>	250,000		25,000	225,000
New York Urban Coalition 99 Hudson Street New York, New York 10013 <i>Model program to improve science education in elementary schools in New York City — \$220,500 (1986)</i>		54,920	54,920	
Nigeria, University of Nsukka, Nigeria <i>Planning research on maternal mortality in Nigeria</i>	21,000		21,000	
Nonprofit Coordinating Committee of New York 419 Park Avenue South New York, New York 10016 <i>1988 membership support</i>	975		975	
North Carolina School of Science and Mathematics 1219 Broad Street Durham, North Carolina 27705 <i>Dissemination of a high school mathematics course for college-bound students</i>	25,000		25,000	
North Carolina, University of, Chapel Hill Chapel Hill, North Carolina 27599 <i>Pilot program in mathematics and science for minorities and girls in grades six through nine — \$250,000 (1986)</i>		125,000	125,000	
<i>Project on Adolescent Literacy</i>	200,000		162,200	37,800
Nuclear Control Institute 1000 Connecticut Avenue, N.W. Washington, D.C. 20036 <i>Public education on nuclear terrorism — \$80,000 (1987)</i>		40,000	40,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Nuclear Times 1601 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>Coverage of research and analysis on the avoidance of nuclear war—\$350,000 (1986)</i>		100,000	100,000	
Overseas Development Council 1717 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Preparation of studies on United States development cooperation issues</i>	25,000		25,000	
<i>Seminars for congresssional staff members on international development issues</i>	50,000		50,000	
Pan American Health Organization 525 23rd Street, N.W. Washington, D.C. 20037 <i>Project to promote health and family life education in schools in four countries and in the Eastern Caribbean—\$299,000 (1986)</i>		117,000	117,000	
<i>Binational research, education, and training programs in maternal, adolescent, and child health in the U.S.-Mexico border region</i>	700,000		200,000	500,000
<i>Study of maternal and child health services in the Caribbean</i>	48,600		48,600	
Parliamentarians Global Action for Disarmament, Development, and World Reform 211 East 43rd Street New York, New York 10017 <i>Project on the development of a global security system</i>	200,000		100,000	100,000
Pathfinder Fund 1330 Boylston Street Chestnut Hill, Massachusetts 02167 <i>Development of model education and counseling programs for pregnant adolescents in present and former Commonwealth members in sub-Saharan Africa—\$402,200 (1985)</i>		320,550	236,635	83,915
Pennsylvania State University University Park, Pennsylvania 16802 <i>Interdisciplinary association concerned with science, technology, and society—\$250,000 (1987)</i>		129,500	40,400	89,100
People for the American Way 2000 M Street, N.W. Washington, D.C. 20036 <i>Public education effort to increase voter participation</i>	100,000		100,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Phelps-Stokes Fund 10 East 87th Street New York, New York 10128 <i>Bishop Desmond Tutu Southern African Refugee Scholarship Fund—\$100,000 (1987)</i>		50,000	50,000	
<i>Planning research by the New York State Judicial Commission on Minorities on biases in the court system</i>	25,000		25,000	
Phillips Academy Andover, Massachusetts 01810 <i>Mathematics and Science for Minority Students Program—\$180,000 (1984)</i>		40,000	40,000	
Pittsburgh Public Schools Bellenfield and Forbes Avenue Pittsburgh, Pennsylvania 15213 <i>Model program to improve science education in the schools—\$150,000 (1986)</i>		50,000	50,000	
Population Council One Dag Hammarskjold Plaza New York, New York 10017 <i>Research on child survival and adolescent fertility in Mexico and the Commonwealth Caribbean—\$500,000 (1985)</i>		150,000	150,000	
Princeton University Princeton, New Jersey 08544 <i>Research on the feasibility of reducing United States and Soviet reliance on nuclear weapons—\$200,000 (1987)</i>		100,000	100,000	
Program for Appropriate Technology in Health 4 Nickerson Street Seattle, Washington 98109 <i>Development of methods to promote the health of mothers and newborns in two southern African countries—\$378,600 (1985)</i>		87,867		87,867
<i>Second phase of the Safe Birth Program in selected Commonwealth countries in Africa</i>	250,000		100,000	150,000
Public Agenda Foundation 6 East 39th Street New York, New York 10016 <i>Public education on national security and U.S.-Soviet relations—\$700,000 (1987)</i>	350,000	100,000	100,000 350,000	
Public Education Association 39 West 32nd Street New York, New York 10001 <i>Research on high school reform in New York City</i>	327,000		161,000	166,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Puerto Rican Legal Defense and Education Fund 99 Hudson Street New York, New York 10013 <i>Education Rights Project—\$390,000 (1983)</i>	450,000	8,834	253,500	8,834 196,500
Pugwash Conferences on Science and World Affairs 11A, Avenue de la Paix 1202 Geneva, Switzerland <i>Symposium on peace and security in the Pacific</i>	25,000		25,000	
Quality Education Project 2110 Scott Street San Francisco, California 94115 <i>Model program to increase parent involvement in elementary schools in Oakland, California—\$175,000 (1986)</i>		45,000		45,000
<i>Completion of the resource manual of the Quality Education Project</i>	25,000		25,000	
Radcliffe College Cambridge, Massachusetts 02138 <i>Visiting fellowships at the Mary Ingraham Bunting Institute for women from developing countries</i>	199,700		9,200	190,500
RAND Corporation 1700 Main Street Santa Monica, California 90406 <i>Research and training on managing U.S.-Soviet conflict—\$1,000,000 (1986)</i>		250,000 1,000,000	250,000 250,000	750,000
<i>Conference for younger scholars on prospects for change in the Soviet Union</i>	17,475		17,475	
Rochester, University of Rochester, New York 14642 <i>Study of the effectiveness of nurse home-visiting programs for low-income mothers and infants</i>	82,000		10,000	72,000
Royal College of Obstetricians and Gynaecologists 27 Sussex Place, Regent's Park London NW1 4RG, United Kingdom <i>Lecturing, consulting, and writing on maternal mortality in sub-Saharan Africa by Kelsey A. Harrison</i>	25,000		25,000	
Rutgers University New Brunswick, New Jersey 08903 <i>Program for Women State Legislators of the Center for the American Woman and Politics—\$150,000 (1986)</i>		50,000	50,000	



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
San Francisco Education Fund 1095 Market Street San Francisco, California 94103 <i>Model program to improve science education in the San Francisco public schools—\$200,000 (1986)</i>		132,550	66,500	66,050
Science Museum of Connecticut 950 Trout Brook Drive West Hartford, Connecticut 06119 <i>Program of elementary and secondary mathematics and science enrichment for minority students in Connecticut</i>	300,000		100,000	200,000
Scientists' Institute for Public Information 355 Lexington Avenue New York, New York 10017 <i>Media education project on child development—\$200,000 (1986)</i>	300,000	50,000	50,000 75,000	225,000
<i>Media Education Project in Military Technology, National Security Issues, and Arms Control—\$400,000 (1987)</i>		300,000	200,000	100,000
Scribner, Richard A. 13114 Hathaway Drive Silver Spring, Maryland 20906 <i>Research on arms control verification issues</i>	25,000		22,500	2,500
Sierra Leone, University of Freetown, Sierra Leone <i>Establishment of a University planning unit—\$376,300 (1976)</i>		40,000		40,000
<i>Study of the feasibility of developing a national science and technology information system</i>	23,000		23,000	
Social Science Research Council 605 Third Avenue New York, New York 10158 <i>Workshops for young scholars on Soviet domestic politics</i>	178,000		86,000	92,000
Southern California, University of Los Angeles, California 90089 <i>Conference on research on school finance issues</i>	20,000		20,000	
Southern Coalition for Educational Equity P. O. Box 22904 Jackson, Mississippi 39205 <i>New Orleans Effective School Project—\$394,000 (1986)</i>		177,000	122,000	55,000
Southern Growth Policies Board 5001 South Miami Boulevard Research Triangle Park, North Carolina 27709 <i>Conference on a regional plan for science and technology policy</i>	16,000		16,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Southern Regional Council 60 Wharton Street, N.W. Atlanta, Georgia 30303 <i>Project on the implications of the 1990 Census for redistricting — \$500,000 (1987)</i>		368,000	90,000	278,000
Southport Institute for Policy Analysis 2425 Post Road Southport, Connecticut 06490 <i>Policy analysis and dissemination on the aging society and federal social role and other nonprofit activities — \$175,000 (1987)</i>		155,000	72,950	82,050
Stanford University Stanford, California 94305 <i>Public service fellowships for graduates of Stanford University and the University of California, Berkeley, in honor of John W. Gardner — \$150,000 (1986)</i>		50,000	50,000	
<i>Evaluation of a teacher training program in mathematics and science education for language-minority children — \$290,000 (1987)</i>		198,170	84,840	113,330
<i>Research and training in international security and arms control — \$1,350,000 (1987)</i>		1,127,436	445,000	682,436
<i>Research and writing on international relations — \$250,000 (1987)</i>		105,000	52,500	52,500
<i>Research on procedures for assessing school teachers — \$1,300,000 (1987)</i>		975,000	487,500	487,500
<i>Book on normal adolescent development</i>	219,000		177,000	42,000
<i>Development of a curriculum in human biology for the middle grades and teacher training materials</i>	513,000		215,000	298,000
<i>Planning materials and training for teachers on the human biology core curriculum</i>	25,000		25,000	
<i>Research on issues that affect minority participation in mathematics and science courses</i>	200,000		75,000	125,000
<i>Tests of new procedures for evaluating science textbooks and to develop teacher training materials</i>	25,000		25,000	
Target '90/Goals for San Antonio 1222 Main, Cypress Tower San Antonio, Texas 78212 <i>Model program to improve science education in the public schools — \$150,000 (1987)</i>		98,600	47,300	51,300

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Task Force on Children Out of School 78 Summer Street Boston, Massachusetts 02110 <i>Analysis of a state-wide initiative on reform of middle schools</i>	200,000		80,000	120,000
Teachers College, Columbia University New York, New York 10027 <i>Research on the history of American education — \$197,736 (1973)</i>  <i>Examination of the federal role in education</i>	75,000	109,736	23,000 75,000	86,736
Texas A&M University College Station, Texas 77843 <i>National project to improve teacher education</i>	248,000		248,000	
Toward a More Perfect Union 666 Broadway New York, New York 10012 <i>Conference on the Constitution and Bill of Rights</i>	25,000		25,000	
TransAfrica Forum 545 8th Street, S.E. Washington, D.C. 20003 <i>Support</i>	75,000		75,000	
Trust Through Health 295 Highland Avenue West Newton, Massachusetts 02165 <i>Planning for a U.S.-Soviet cooperative demonstration project in primary health care in Tanzania</i>	25,000		25,000	
Uganda, Ministry of Health Kampala, Uganda <i>Studies on health care financing and efficiency in Uganda</i>	150,000			150,000
United States Department of Education 400 Maryland Avenue, S.W. Washington, D.C. 20202 <i>Mina Shaughnessy Scholars Program of the Fund for the Improvement of Postsecondary Education — \$250,000 (1980)</i>		23,950		23,950
United States-South Africa Leader Exchange Program 1700 17th Street, N.W. Washington, D.C. 20009 <i>Alan Pifer South Africa-United States Fellowship Program — \$100,000 (1983)</i>	5,188 <sup>b</sup>	90,358	48,457	41,901

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Urban Affairs Partnership Broad and Chestnuts Streets Philadelphia, Pennsylvania 19102 <i>Model program to improve mathematics and science education in the Philadelphia public schools — \$250,000 (1986)</i>		70,000	70,000	
Urban Institute 2100 M Street, N.W. Washington, D.C. 20037 <i>Meeting on strategies for financing children's programs</i>	25,000		25,000	
Utah, University of Salt Lake City, Utah 84112 <i>HERS/West — \$210,000 (1984)</i>		25,000	25,000	
West Indies, University of the Mona, Kingston 7 Jamaica <i>Health program in the Commonwealth Caribbean under the auspices of the Women and Development Unit — \$321,700 (1986)</i>		103,900		103,900
<i>Inaugural meeting of the Caribbean Academy of Sciences</i>	25,000		25,000	
Western Cape, University of the Private Bag X17 7535 Bellville, Republic of South Africa <i>Administration of international academic linkages</i>	90,000		30,000	60,000
Western Interstate Commission for Higher Education P.O. Drawer P Boulder, Colorado 80301 <i>Initiatives to improve educational opportunities for minorities</i>	20,000		20,000	
Western New York Public Broadcasting Association P.O. Box 1263 Buffalo, New York 14240 <i>Production and evaluation of teachers' guides for instructional television broadcasts</i>	25,000		25,000	
WGBH Educational Foundation 125 Western Avenue Boston, Massachusetts 02134 <i>Development of an educational television series and course on Latin America and the Caribbean — \$180,000 (1987)</i>		119,900	119,900	



Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Production of a television series on international environmental issues and for related educational activities—\$335,120 (1987)</i>		235,120	50,000	185,120
<i>Educational television series and course on Latin America and the Caribbean</i>	400,000			400,000
<i>Production, promotion, and educational outreach for a television series for early adolescents</i>	400,000		250,000	150,000
Wilgespruit Fellowship Centre P.O. Box 81, Roodepoort 1725 Transvaal, Republic of South Africa <i>Training program for black South Africans in community development skills—\$105,000 (1987)</i>		75,000	75,000	
Wisconsin-Madison, University of Madison, Wisconsin 53706 <i>Research and writing on the enforcement of nuclear export controls</i>	25,000		25,000	
Wisconsin-Milwaukee, University of Milwaukee, Wisconsin 53201 <i>Model project to prepare minority middle school students for careers in science and mathematics</i>	20,000		20,000	
Witwatersrand, University of the 2050 Johannesburg, Republic of South Africa <i>Centre for Applied Legal Studies—\$125,000 (1978)</i>	50,000	567 25,000	25,000	50,567
<i>Health Services Development Unit</i>	75,000		75,000	
Woodrow Wilson International Center for Scholars Smithsonian Institution Building Washington, D.C. 20560 <i>Planning a program in conflict management and resolution</i>	25,000		25,000	
Woodrow Wilson National Fellowship Foundation P.O. Box 642 Princeton, New Jersey 08542 <i>Institutes in mathematics and science for teachers at predominantly minority secondary schools—\$150,000 (1986)</i>		50,000	50,000	
World Commission on Environment and Development Palais Wilson, 52, rue des Paquis CH-1201 Geneva, Switzerland <i>Dissemination of its report</i>	200,000		200,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
World Health Organization 1211 Geneva 27 Switzerland				
<i>Research and training on biobehavioral science and mental health in developing countries — \$448,000 (1986)</i>		243,000 116,500	142,000 71,000	101,000 45,500
<i>Development and evaluation of functional literacy programs for women in Kenya, Zimbabwe, Ghana, and Nigeria — \$326,000 (1987)</i>		190,000	75,000	115,000
Worldwide Documentaries 50 Chestnut Plaza Rochester, New York 14604				
<i>Distribution of a film on a South African church leader</i>	25,000		25,000	
Yale University New Haven, Connecticut 06520				
<i>Fellowships for black South Africans in the Southern African Research Program — \$100,000 (1986)</i>		33,333	33,333	
<i>Seminars in mathematics and science for public school teachers in the Yale-New Haven Teachers Institute — \$250,000 (1986)</i>		94,300	94,300	
<i>Analysis of public attitudes about national security</i>	25,000		25,000	
<i>Model school improvement programs in middle schools in New Haven</i>	487,000		75,000	412,000
<i>Planning a project to improve the quality and supply of family day care</i>	25,000		25,000	
Zambia Association for Research and Development P.O. Box 37836 Lusaka, Zambia				
<i>Development of a national women's resource center in Zambia</i>	7,000		7,000	
Zimbabwe, University of Harare, Zimbabwe				
<i>Staff recruitment and development — \$50,000 (1982)</i>		18,108		18,108
<i>Improvement of the health information system of the medical library</i>	24,000		24,000	
<b>Total</b>	<b>\$38,177,755</b>	<b>\$25,577,204</b>	<b>\$35,512,429</b>	<b>\$28,242,530</b>

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<b>Studies and projects administered by the officers</b>				
<i>Aging Society Project — \$23,900 (1986)</i>		77	63	14
<i>Carnegie Commission on Science, Technology, and Government</i>	<b>500,000</b>		437,650	62,350
<i>Carnegie Council on Adolescent Development — \$500,000 (1986)</i>		69,449 700,000	69,449 589,300	110,700
<i>Carnegie Forum on Education and the Economy — \$1,466,000 (1987)</i>		898,535	386,769	511,766
<i>Dissemination of Second Carnegie Inquiry and Miscellaneous Expense — \$156,437 (1986)</i>		119,125	1,395	117,730
<i>International Center of Photography — \$132,113 (1986)</i>		18,500	18,500	
<i>For dissemination of the report, Within Our Reach: Breaking the Cycle of Disadvantage, by Lisbeth B. Schorr and Daniel Schorr</i>	<b>5,000</b>			5,000
<i>For a study of adolescent health to be conducted in cooperation with the Office of Technology Assessment, U.S. Congress</i>	<b>275,000</b>		275,000	
<b>Total</b>	<b>\$ 780,000</b>	<b>\$ 1,805,685</b>	<b>\$ 1,503,127</b>	<b>\$1 ,082,558</b>

<sup>a</sup>Cancelled: included in total payments.

<sup>b</sup>Funds from the appropriation are held in a separate interest-bearing account. This amount represents interest in fiscal year 1988.

#### Adjustments of grant appropriations

Not required: cancelled (listed above) \$ 75,000

#### Refunds from grants or allocations made in prior years

1976-77	Council on Library Resources	\$ 1,415
1978-79	Carnegie Council on Children	878
1978-79	United Nations Economic Commission for Africa	17,736
1982-83	American Association for Higher Education	3,508
1983-84	Dan Dimancescu and James Botkin	1,848
1984-85	International Student Pugwash	1,699
1984-85	Public Broadcasting Associates	1,714
1985-86	Aging Society Project	1,794
1985-86	American Public Welfare Association	3,443
1985-86	Carnegie Mellon University	7,886
1985-86	New York University	21,072
1985-86	Research Foundation for Mental Hygiene	40
1985-86	Temple University	30
1986-87	Council of State Governments	45
1986-87	Foundation for Excellence in Teaching	2,263
1986-87	Harvard University	67,848
1986-87	National Academy of Sciences	11,636
1986-87	New York University	5,997
		<u>\$150,852</u>





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## *Report of the Secretary*

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The annual meeting of the trustees on December 10, 1987, marked the retirement from the board of Margaret K. Rosenheim, vice chairman, and Tomás A. Arciniega, both trustees since 1980. Helene L. Kaplan was reelected chairman, Fred M. Hechinger was elected vice chairman to succeed Ms. Rosenheim, and James Lowell Gibbs, Jr., and Thomas A. Troyer were reelected to four-year terms as trustees.

At the same meeting, Richard I. Beattie was elected to the board of trustees. Mr. Beattie, a partner in the law firm of Simpson Thacher & Bartlett, is former general counsel for the U.S. Department of Health, Education, and Welfare. He also served on the New York City Board of Education.

Eugene H. Cota-Robles was elected to the board of trustees at the meeting held on February 18, 1988. Dr. Cota-Robles is a professor of biology, currently on leave from the University of California, Santa Cruz, and assistant vice president for academic affairs at the University of California, Berkeley. Dr. Cota-Robles was formerly provost of Crown College, University of California, Santa Cruz.

Meetings of the board of trustees were held on October 8 and December 10, 1987, and February 18, April 21, and June 22, 1988. A retreat for trustees and senior staff was held June 22-24, 1988, at the Center for Spring Hill Programs, Wayzata, Minnesota. The topic was "Critical Issues in Early Childhood and Adolescence."

The finance and administration committee during the year consisted of Richard B. Fisher, chairman, Bruce B. Dayton, David A. Hamburg, Ms. Kaplan, Ann R. Leven, Ray Marshall, and Laurence A. Tisch. Meetings were held on December 3, 1987, and March 3 and May 18, 1988.

The nominating committee consisted of Mr. Hechinger, chairman, Dr. Hamburg, Ruth Simms Hamilton, Joshua Lederberg, and Mr. Troyer. Meetings were held on October 7 and December 9, 1987, and February 18 and June 23, 1988.

The members of the agenda committee during the year were Mr. Gibbs, Dr. Hamburg, Ms. Kaplan, Newton N. Minow, and Sheila E. Widnall. The committee met on October 7 and December 10, 1987, and February 18, April 21, and June 24, 1988.

At the February 18, 1988, meeting of the board, the trustees approved the establishment of a Carnegie Commission on Science, Technology, and Govern-

ment. The commission was created to examine the processes through which government incorporates scientific and technological knowledge into the formulation and implementation of policy at the federal and state levels. It will consider policy and administrative decision making in the executive, regulatory, legislative, and judicial branches. The commission will seek ways for government to stimulate and utilize the contributions of the nation's scholarly community in science and technology in and out of government.

The commission, located in New York, will operate for about three years with a follow-up period of at least two years. Cochairs are Dr. Lederberg, president of The Rockefeller University, and William T. Golden, president of the New York Academy of Sciences.

David Z. Robinson was appointed executive director and a member of the commission. He joined the Corporation as vice president in 1970 and became executive vice president in 1980 and treasurer in 1986. Though he resigned those positions with this appointment, he will continue to serve the Corporation as senior counselor to the president.

In June, David Z. Beckler became associate director of the commission. He was executive officer of the President's Science Advisory committee and senior assistant to six science advisers to the president from 1957 to 1972. He served as special assistant to the president of the National Academy of Sciences from 1973 to 1976. From 1976 to 1983, he was director for science, technology, and industry for the Organization for Economic Cooperation and Development in Paris. After retiring in 1983, he was a consultant to governments and the private sector on science and technology policy.

Other staff appointments to the Commission were also made. In April, Michelle A. Connolly was appointed office manager and administrative assistant. She was formerly administrative assistant to the chairman/president of Gill & Duffas, Inc. In the same month, David A. Kirsch, a recent graduate of Harvard University with a B.A. in history and science, became program assistant to the Commission.

At the February 18, 1988, meeting of the board, Barbara D. Finberg was appointed executive vice president of the Corporation, replacing Mr. Robinson. She had been vice president, program, since 1980 and continues as chair of the Special Projects Committee.

At the October 8, 1987, meeting, Dorothy W. Knapp was appointed secretary, succeeding Sara L. Engelhardt. Jeanmarie C. Grisi was named associate treasurer, and Cynthia E. Merritt was named assistant secretary. In addition to continuing as director of publications, a position she has held since 1973, Avery Russell was named program officer.

The work of the Carnegie Council on Adolescent Development continued during 1987-88. In November, Susan G. Millstein was named associate director. A graduate of Northwestern University and the University of California, San Francisco, her research interests are in adolescent health and illness. She served as director of research for the adolescent medicine division of the medical school of the University of California, San Francisco.

The Carnegie Forum on Education and the Economy ceased operations as a Corporation-sponsored activity on December 31, 1987, and was succeeded by an

independent organization, the National Center on Education and the Economy, based in Rochester, New York. Marc S. Tucker, formerly executive director of the Forum, is president of the Center.

Geraldine P. Mannion joined the staff of the Corporation in August as program associate for Special Projects. She was with the Rockefeller Foundation from 1974 to 1987, most recently as program associate in the International Relations Division. She subsequently served as a consultant to the foundation at its Nairobi field office and to the Ford Foundation's International Affairs Program. She holds bachelor's and master's degrees from Fordham University.

In August, David Devlin-Foltz, program associate in the Strengthening Human Resources in Developing Countries program, moved to Harare, Zimbabwe. There he and his wife, Betsy, share a position as academic director of the college semester abroad program of the School for International Training. He continues to act as a consultant to the Corporation on its program in southern Africa.

Gloria De Necochea, program associate in the Education: Science, Technology, and the Economy program since 1986, left the Corporation in September to return to California to become senior program officer at the California Community Foundation. Tracey L. Thompson, program assistant to Bernard L. Charles, left in July to return to the Bahamas to pursue a career in law.

Gloria A. Yannantuono, administrative assistant in the office of the vice president since 1970, retired from the Corporation in April. In June, Michele A. Berdy, publications assistant, left to work as a translator and consultant in publishing. And Nancy M. Matthews, administrative assistant in the secretary's office, left in September. Other changes in title are reflected in the staff listing.





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Andrew Carnegie was born in Scotland in 1835. He came to the United States with his family in 1848 and went to work as a bobbin boy in a cotton mill. After a succession of jobs with Western Union and the Pennsylvania Railroad, he eventually resigned to establish his own business enterprises and, finally, the Carnegie Steel Company, which launched the huge steel industry in Pittsburgh. At the age of 65 he sold the Company and devoted the rest of his life to writing, including his autobiography, and to philanthropic activities, intending to give away \$300 million. He gave away \$311 million.

Gifts to hundreds of communities in the English-speaking world helped to make his idea of the free public library as the people's university a reality. In all, 2,509 libraries were built with Carnegie funds. His endowment of the Carnegie Institute in Pittsburgh brought important educational and cultural benefits to the community in which he made his fortune. From experience he knew the importance of science applied to commerce and industry, and he provided for technical training through the Carnegie Institute of Technology. By establishing the Carnegie Institution of Washington he helped to stimulate the growth of knowledge through providing facilities for basic research in science.

Mr. Carnegie set up the Carnegie Trust for the Universities of Scotland to assist needy students and to promote research in science, medicine, and the humanities. For the betterment of social conditions in his native town of Dunfermline, Scotland, he set up the Carnegie Dunfermline Trust. To improve the well-being of the people of Great Britain and Ireland, he established the Carnegie United Kingdom Trust.

In the United States, he created The Carnegie Foundation for the Advancement of Teaching primarily as a pension fund for college teachers and also to promote the cause of higher education. To work for the abolition of war, he established the Carnegie Endowment for International Peace. To recognize heroism in the peaceful walks of life as being as worthy as valor in battle, he created funds in the United States, the United Kingdom, and nine European countries to make awards for acts of heroism. In contributing to the construction of the Peace Palace at The Hague, the Pan American Union building in Washington, and the Central American Court of Justice in Costa Rica, he further expressed his belief in arbitration and conciliation as substitutes for war.

In 1911, having worked steadily at his task of giving away one of the world's great fortunes, Mr. Carnegie created Carnegie Corporation of New York, a separate foundation as large as all his other trusts combined.

Each of the Carnegie agencies has its own funds and trustees and each is independently managed.

The following statements are set forth in accordance with section 6056 of the United States Internal Revenue Code, pursuant to which this annual report has been prepared:

- Carnegie Corporation of New York (employer identification number 13-1628151) is a private foundation within the meaning of section 509(a) of the Internal Revenue Code.
- The names and respective business addresses of the "foundation managers" of the Corporation are set forth in the front section of this annual report.
- No person who is a "foundation manager" with respect to the Corporation has made any contribution to the Corporation in any taxable year.
- At no time during the year did the Corporation (together with other "disqualified persons") own more than 2 percent of the stock of any corporation or corresponding interests in partnerships or other entities.
- Pursuant to section 6104(d) of the Internal Revenue Code, a notice has been published that this annual report and the Corporation's annual return are available for public inspection at the principal office of the Corporation. A copy of this report has been furnished to the Attorney General of the State of New York.

April 15, 1989

David A. Hamburg, President



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